NOTE

This Microfiche meets the quality requirements of the American National Standard for Microfiche of Documents (ANSI PH5.9-1975). However, because of imperfections in the document from which it was made, it contains images that are illegible or difficult to read. The source document for this microfiche is the best copy that could be obtained prior to filming.

CIS

Congressional Information Service
Washington, D.C.

S. Hrg. 101-779

REAUTHORIZATION OF WIC AND CHILD NUTRITION LEGISLATION

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
NUTRITION AND INVESTIGATIONS

OF THE

COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

REAUTHORIZATION OF THE SPECIAL SUPPLEMENTAL FOOD PROGRAM FOR WOMEN, INFANTS AND CHILDREN AND THE CHILD NUTRITION PROGRAMS

JUNE 14 AND 15, 1989

Printed for the use of the
Committee on Agriculture, Nutrition, and Forestry

S161-11

U.S. GOVERNMENT PRINTING OFFICE
30-240 ⇆
WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY

PATRICK J. LEAHY, Vermont, *Chairman*

DAVID H. PRYOR, Arkansas
DAVID L. BOREN, Oklahoma
HOWELL HEFLIN, Alabama
TOM HARKIN, Iowa
KENT CONRAD, North Dakota
WYCHE FOWLER, Jr., Georgia
THOMAS A. DASCHLE, South Dakota
MAX BAUCUS, Montana
J. ROBERT KERREY, Nebraska

RICHARD G. LUGAR, Indiana
ROBERT DOLE, Kansas
JESSE HELMS, North Carolina
THAD COCHRAN, Mississippi
RUDY BOSCHWITZ, Minnesota
MITCH McCONNELL, Kentucky
CHRISTOPHER S. "KIT" BOND, Missouri
PETE WILSON, California
SLADE GORTON, Washington

CHARLES RIEMENSCHNEIDER, *Staff Director*
JAMES M. CUBIE, *Chief Counsel*
CHRISTINE SARCONE, *Chief Clerk*
CHARLES CONNER, *Staff Director for the Minority*

SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS

TOM HARKIN, Iowa, *Chairman*

WYCHE FOWLER, Jr., Georgia
J. ROBERT KERREY, Nebraska
DAVID H. PRYOR, Arkansas

RUDY BOSCHWITZ, Minnesota
ROBERT DOLE, Kansas
JESSE HELMS, North Carolina

CONTENTS

Page

Hearing held on:
  June 14, 1989 1
  June 15, 1989 117

REAUTHORIZATION OF WIC AND CHILD NUTRITION LEGISLATION

WEDNESDAY, JUNE 14, 1989

Harkin, Hon. Tom, a U.S. Senator from Iowa 1
Boschwitz, Hon. Rudy, a U.S. Senator from Minnesota 3
  Prepared statement 3
Sasser, Hon. Jim, a U.S. Senator from Tennessee 5
  Prepared statement 7
Leahy, Hon. Patrick J., a U.S. Senator from Vermont 10
Bond, Hon. Christopher S. "Kit", a U.S. Senator from Missouri, prepared statement 11

CHRONOLOGICAL LIST OF WITNESSES

Dunn, G. Scott, Acting Administrator, Food and Nutrition Service, U.S. Department of Agriculture, Washington, DC; accompanied by George A. Braley, Acting Associate Administrator 12
  Prepared statement 63
  Efforts to Promote Breastfeeding in the Supplemental Food Programs 69
  Article "Declining Prevalence of Anemia Among Low-Income Children in the United States" 73
  Hunt, Janet R., Ph.D., R.D., Research Nutritionist, letter of, dated June 1, 1989, to J. Terry Williams, R.D., M.P.H. 78
  Nutrient Composition/Per Day, table 80
  "Trace Elements" an excerpt from "Recommended Dietary Allowances," National Research Council, 1980 (ninth edition), article 81
  Examples of Method to Calculate Absorbable Iron From Single Meals, table 86
Lowe, Beverly, president-elect, American School Food Service Association (ASFSA), Hampton, VA; accompanied by Mary Klatko, chairman, Public Policy and Legislative Committee, ASFSA; Annette Bomar, chairman, State Directors' Section, ASFSA; and Marshall Matz, counsel, ASFSA, Washington, DC 24
Klatko, Mary, testimony of 27
Bomar, Annette, testimony of 27
American School Food Service Association:
  Prepared statement 87
  Bush, George, President of the United States, letter of, dated April 21, 1989, to the members of the American School Food Service Association 89
  American School Food Service Association, 1989 Legislative Issue Paper entitled "Invest in our Children" 89
  Klatko, Mary and Annette Bomar, memorandum of and attachment, dated May 25, 1989, to Marshall Matz, subject: Summary of Paperwork Reduction Priorities 91
Gahr, William E., Associate Director, Food and Agriculture Issues, Resources, Community, and Economic Development Division, U.S. General Accounting Office, Washington, DC; accompanied by Robert Robertson and Harry Wolfe 35

Page

Gahr, William E., Associate Director, Food and Agriculture Issues, Resources, Community, and Economic Development Division, U.S. General Accounting Office, Washington, DC; accompanied by Robert Robertson and Harry Wolfe—Continued
  Correlation between the price of school lunch and the participation level in the School Lunch Program, response supplied for the record 39
  Prepared statement 94
  CCC Surplus Purchases (Dairy), chart 97
  Dairy Donations to the School Lunch Program (Bonus and Entitlement), chart 98
  Cheese Donations to the School Lunch Program (Bonus vs. Entitlement), chart 99
Brown, Carolyn A., Child Nutrition Section, Management Effectiveness Section, Manager, Child Nutrition Food Program, Minnesota Department of Education, St. Paul, MN 40
  Prepared statement 100
  Hunger Prevention Act of 1988 CCFP Demonstration Project—Minnesota Child Care Centers Summary, table 104
Pool, Kathy, president, Minnesota Licensed Family Child Care Association, Dassel, MN 46
  Prepared statement 106
Sidel, Victor W., distinguished university professor of social medicine, Montefiore Medical Center and the Albert Einstein College of Medicine, Bronx, NY, past president, American Public Health Association and Physicians for Social Responsibility, New York, NY 51
  Prepared statement 108
Kotch, Jonathan B., associate professor, School of Public Health, Department of Maternal and Child Health, University of North Carolina, Chapel Hill, NC 54
  Prepared statement 112
Thompson, Ellen B., National Association of State NET Program Coordinators and Society for Nutrition Education, Burlington, VT 58
  Prepared statement 113

REAUTHORIZATION OF WIC AND CHILD NUTRITION LEGISLATION

THURSDAY, JUNE 15, 1989

Harkin, Hon. Tom, a U.S. Senator from Iowa 117

CHRONOLOGICAL LIST OF WITNESSES

Bell, Loren, president, National Association of WIC Directors (NAWD), Olympia, WA 117
  Prepared statement 161
  Memos:
    National Association of WIC Directors, dated June 26, 1989, to Subcommittee on Nutrition and Investigations 165
    Williams, Joseph T., dated September 2, 1986, to Nutritional Risk Advisory Committee, re, Responses to Policy Statement and Guidelines 165
  NAWD Legislative Proposal 166
Bach, Dennis H., director, Iowa WIC Program, Iowa Department of Public Health, Des Moines, IA 121
  Prepared statement 170
Blount, C. Richard, manager, Section of Food and Nutrition Services, Missouri Department of Health, Jefferson City, MO 124
  Executive Summary 173
  Prepared statement 174
Lazarov, Minda, director, Tennessee Breastfeeding Promotion Project, Tennessee Department of Health and Environment, Bureau of Health Services, Nashville, TN 127
  Prepared statement 179
  Overview of Effective Breastfeeding Promotion Programs for Low-Income Women, table 188
  Literature Cited 190

Page

Lazarov, Minda, director, Tennessee Breastfeeding Promotion Project, Tennessee Department of Health and Environment, Bureau of Health Services, Nashville, TN—Continued
  Cost of Breastfeeding Promotion Programs 191
Heppel, David, M.D., Director, Division of Maternal, Child and Infant Health, Public Health Service, Department of Health and Human Services, Washington, DC, on behalf of C. Everett Koop, M.D., Surgeon General, Public Health Service, Washington, DC 140
  Breastfeeding—SPRANS Abstracts FY 1989, article 195
Weaver, Connie M., professor, Department of Foods and Nutrition, Purdue University, West Lafayette, IN 142
  Prepared statement 229
  References 231
  Table 1.—Cost of Cereals, Meat, and Eggs, as a Source of Iron 232
Hendrich, Suzanne, Ph.D., assistant professor, Food and Nutrition, Iowa State University, Ames, IA 144
  Prepared statement 233
Cooney, Edward M., deputy director, Food Research and Action Center, Washington, DC 148
  Prepared statement 236
  Leland, Hon. Mickey, chairman, House Select Committee on Hunger, letter of, dated June 19, 1989, to the Honorable Augustus Hawkins, chairman, Subcommittee on Elementary, Secondary and Vocational Education 241
Greenstein, Robert, director, Center on Budget and Policy Priorities, Washington, DC 152
  USDA study of WIC administrative cost issues, supplied response 155
  Prepared statement 243
  States With Especially Low Participation in the Summer Food Program, table 253
  The Research Findings on WIC, evaluation 254

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Clydesdale, Fergus M., professor and head, Department of Food Science, University of Massachusetts, Amherst, MA, prepared statement 255
  Chart 1.—Nutrient Intake and Distribution of WIC Nutrients 259
  Chart 2.—Absorbable Iron Comparison 260
  Chart 3.—Cost Per Milligram Absorbable Iron Comparison 261
  Chart 4.—The Impact of Adding Hamburger to the WIC Food Package on a Daily Basis 262
  Chart 5.—Nutrient Comparison 263
  Chart 6.—Nutrient Comparison 264
  Appendix 1.—Amount Absorbable Iron and Cost for Cereal and Hamburger 265
Mahoney, Arthur W., professor of nutrition, Utah State University, Logan, UT, prepared statement 266
Lawrence, Ruth A., M.D., professor of pediatrics and obstetrics/gynecology at the University of Rochester School of Medicine, prepared statement 267
Hughes, Charles, president of Local 372, Board of Education Employees, District Council 37 and chairperson of the School Advisory Committee, American Federation of State, County and Municipal Employees, prepared statement 267
Ebbitt, James R., Assistant Inspector General for Audit, Office of Inspector General, U.S. Department of Agriculture, prepared statement 269
Jones, Jean, Specialist in Social Legislation, and Ilene Shapiro, Technical Information Specialist, Education and Public Welfare Division, memo of, dated June 7, 1989, the Origins of Food Items and Food Package Requirements in the Special Supplemental Food Program for Women, Infants and Children (WIC) 273

REAUTHORIZATION OF WIC AND CHILD NUTRITION LEGISLATION

WEDNESDAY, JUNE 14, 1989

U.S. SENATE,
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:05 p.m., in room SR-332, Russell Senate Office Building, Hon. Tom Harkin (chairman of the subcommittee) presiding.

Present or submitting a statement: Senators Leahy, Harkin, Boschwitz, and Bond.

STATEMENT OF HON. TOM HARKIN, A U.S. SENATOR FROM IOWA

Senator HARKIN. The Subcommittee on Nutrition will come to order.

We meet today to review the Special Supplemental Food Program for Women, Infants and Children (WIC) and the child nutrition programs comprised of the national School Lunch and Breakfast Programs, the Summer Food Service Program, the Child Care Food Program and the Nutrition Education and Training Program.

This hearing is preparatory to the reauthorization of these programs which are so vital in the lives of many Americans today. The reauthorization process gives us the opportunity to review these programs and how well they meet our objectives.

We will hear from the USDA's Food and Nutrition Service, the American School Food Service Association, U.S. General Accounting Office, and many other professionals and experts with a wide range of experience and knowledge concerning the need for, and the administration of these programs.

I would like to take just a moment to point out some of the important features and characteristics of these programs.

WIC is a supplemental feeding program for pregnant and post partum mothers, infants, and children ages 1–5. In fiscal year 1989 with a budget of less then $2 billion it will serve almost 4 million program participants monthly, at an average commodity cost of just over $30 a person. This year's commodity cost is lower than last year's due primarily to competitive bidding. I expect that commodity costs will continue to decline as States continue to incorporate concessional pricing schemes. I am proud to say that the legislation enabling competitive bidding originated in this subcommittee after extensive meetings with State WIC directors, advocacy groups, government officials and other professionals and experts in the field. The GAO has estimated for the subcommittee that this legislation could ultimately save hundreds of millions of dollars in program costs. I have asked some of our witnesses to comment on this and other ways of improving and streamlining the WIC Program.

It is important that we recognize that WIC is one of the most economical and efficient assistance programs we have. Not only are the costs minimal, but early nutrition assistance saves the United States three times its cost in subsequent health care benefits for certain program participants.

That is why it is so unfortunate that WIC reaches only about half, not quite half, of those eligible for participation. I shudder to think of the social opportunity costs we are incurring by failing to fully fund this important program. It is really a shame. As the chairman of the Subcommittee on Nutrition and Investigations, I believe WIC is a priority program that demands full funding for all eligible program participants.

My goal is to set us on that course that in the shortest possible time that we will be able to serve 100 percent of those eligible.

The School Lunch Program helps ensure the nutritional well-being of 24 million young Americans daily. There has been some talk of eliminating certain portions of this program. I want to say early and very clearly that it is not a subsidy to the rich and well-to-do. Contrary to what some may think, the School Lunch Program is first and foremost a grant-in-aid to schools to ensure a *nutritious* meal. We look forward to hearing from those who devote their time and efforts to caring for one of our Nation's most important resources—the nutritional well-being of our youth.

The School Breakfast Program, vital as it is, serves only 4 million students daily. Its potential lies largely untapped. We will hear how this program can be improved and expanded.

The Summer Food Service Program was established to help needy children during the summer when school is not in session and they have no access to, many of them, to the only good meal they have during the day which is the school lunch. As a country, we are solely beginning to realize that our Nation's poor are primarily children. One in five children in this land of plenty live in poverty. The Summer Food Service Program seeks to fill the nutritional void for poor children when they are not in school.

The Child Care Food Program is opened to all licensed nonprofit public and private child care centers and day care homes designed to provide child care services to preschool children.

The Nutrition Education and Training (NET) Program, in operation for 10 years now, educates and trains individuals, primarily school children concerning the importance of proper nutrition and it improves attitudes and eating habits as well.

As good and as vital as all these programs are, there is room for improving the administration of them. We have asked each of our witnesses today to address how these programs can be made more efficient and more cost-effective.

Of the $7 billion that will be spent on these programs in fiscal year 1989, the bulk of it will address hunger in the United States. Hunger is, indeed, a blight on our collective conscience and social luxury that we cannot afford. Much like mind altering drugs, hunger numbs our senses and weakens our social fabric. It is a blight on our collective conscience which robs us of our dignity and true potential.

As a nation, we need to review our priorities and recommit ourselves to rehabilitating our social welfare programs. We need to, if I can put it in these words, deprive hunger of a place in our society and to recognize that our investment in these programs is an investment in our national security.

So I am pleased to see so many people here at this opening session of our hearings on the various nutrition bills that we will be reauthorizing this year.

One of those with whom I have had the pleasure of working over the past several years, especially on this issue, also others, is my friend and colleague from Minnesota who is also interested in this area, and I should go beyond saying interested, has involved himself very deeply in promoting and pushing these programs of nutrition for our Nation's kids and our Nation's poor. I would recognize my colleague from Minnesota for any opening remarks he might make.

STATEMENT OF HON. RUDY BOSCHWITZ, A U.S. SENATOR FROM MINNESOTA

Senator BOSCHWITZ. Thank you, Senator, and you know, it is very much in the tradition of both our States. Many of these nutrition programs were initiated by my predecessor here in the Senate, Senator Humphrey. It is also very much in the tradition of these programs that we operate in a most bipartisan nature, and the programs have been successful because of that. We have kept them growing because of that, and I think have been able to iron out some of the difficulties that always arise in programs of that size. I am pleased to welcome some people from my State here today as witnesses. I am looking forward to this hearing, and I thank you for calling it, Mr. Chairman.

[The prepared statement of Senator Boschwitz follows:]

PREPARED STATEMENT OF HON. RUDY BOSCHWITZ, A U.S. SENATOR FROM MINNESOTA

Mr. Chairman, I am pleased that we are holding these child nutrition hearings. As we all know, it's important that we take a close look at the child nutrition programs that need to be reauthorized this year. I look forward to hearing the testimony presented here today and tomorrow.

Back in 1983 I joined the Nutrition Subcommittee because of my growing concern over the problem of hunger and my interest in the ways the Federal Government can address that problem. I have been a strong supporter of the child nutrition programs such as WIC, School Lunch, School Breakfast, and the Child Care Food Program. These existing Federal nutrition programs have provided vital nutritional assistance to our Nation's children.

The nutrition programs have a very bipartisan tradition here in the Senate. Another Minnesotan, Hubert Humphrey, is widely regarded as the founder of the WIC Program. Indeed, Hubert Humphrey and Senator Bob Dole began many of the nutrition programs. In the Agriculture Committee and the Nutrition Subcommittee, we continue in that bipartisan coalition on nutrition issues.

I was pleased that we were able to strengthen several child nutrition programs last year in the Hunger Prevention Act. I felt that it was imperative that we include child nutrition provisions in that nutrition package.

The Hunger Prevention Act increased the reimbursement for the School Breakfast Program. I've been a long-time supporter of this program and have been strongly encouraging more schools to offer breakfast for their students. Any school teacher can tell you how difficult it is to teach hungry pupils. This modest increase also goes to breakfast meals served in child-care centers and day-care homes participating in the Child Care Food Program.

Last year's bill also provided reimbursement for an additional meal or snack for children who are cared for 8 hours or longer in child care centers. I had pushed for providing the additional reimbursement for day care homes as well as centers and was disappointed that it was not included in the final bill. I will continue to push for the reimbursement for an additional meal or snack for day care homes as well. I am pleased that today we have two Minnesotans appearing before the subcommittee who will share their views and experiences with the Child Care Food Program.

Earlier this year there were some concerns about funding for the School Lunch Program. The budget President Reagan presented for 1990 contained severe cuts in the School Lunch Program. The former President proposed to eliminate the school lunch subsidy to the "paying child"—those children from families with income above 185 percent of poverty. Several of my colleagues on the Agriculture Committee and I wrote to Secretary of Agriculture Clayton Yeutter to express concern about the proposed child nutrition cuts in the Reagan budget. We reminded him that these proposed cuts have been rejected repeatedly by Congress based on evidence that schools would eliminate their lunch program altogether without the subsidy. I was pleased that President Bush's budget proposal—and the budget resolution approved by Congress—did not include specific cuts for child nutrition.

I also want to comment briefly about WIC and funding for fiscal year 1990. WIC is a proven program. Because of the WIC Program babies weigh more at birth, many children are healthier in their first 5 years and these children establish a better health picture for subsequent years. We need to continue to reach more of those eligible for WIC. The fiscal year 1990 budget resolution assumed an increase of $150 million above inflation for WIC. Seventy-two of my colleagues and I have sent a strong message to the Ag Appropriations Subcommittee, urging them to provide the full increase and appropriate $2.158 billion for WIC.

Again, I am pleased that we are holding these important hearings today and look forward to hearing about the child nutrition programs.

Senator HARKIN. Thank you, Senator Boschwitz. Our first witness will be the chairman, the distinguished chairman of the Senate Committee on the Budget, the Honorable Jim Sasser, Senator from the great State of Tennessee. I want to welcome Senator Sasser to the subcommittee, again an individual who has shown great compassion and a great interest in promoting the feeding programs that I just mentioned, the whole list I have mentioned.

He has spoken to me in private many times about working with us and the Budget Committee to make sure that these programs get as much funding as possible under the constraints in which we work.

Jim, I just want to say I mentioned in my opening remarks about the new competitive bidding process that we have now put in WIC, and if I am not mistaken, that originated in Tennessee. That is where it all started, and we found out that they were saving all this money, but that the money was reverting back to Washington. So we made a little change in the law to provide not only for competitive bidding, but any money they save can stay in the State and serve more people. So it was really Tennessee that started the whole thing. So I congratulate you and your State.

Senator BOSCHWITZ. I would share some of the views of my colleague from Iowa. I serve with Senator Sasser on the Budget Committee and know of his interest in these programs. I would hasten to add that, of course you say those nice things about all the Democrats, but in this case it is correct.

The CHAIRMAN. All the Democrats deserve it.

Senator HARKIN. But I would say it about any Budget Committee chairman. [Laughter.]

Senator **Boschwitz**. That was faint praise.

Senator **Harkin**. Senator Sasser, welcome.

STATEMENT OF HON. JIM SASSER, A U.S. SENATOR FROM TENNESSEE

Senator **Sasser**. Thank you, Mr. Chairman Harkin and Mr. Chairman Leahy, and my distinguished friend and colleague, Senator Boschwitz. This is the first time I have appeared here before the Senate Agriculture Committee, and it is a great pleasure for me to be here. I am very pleased to be here today and testify on legislation reauthorizing the Supplemental Food Program for Women, Infants and Children (WIC) Program and child nutrition entitlement programs.

I have a longer statement, Mr. Chairman, which I would like to submit for the record, if I may.

Senator **Harkin**. Without objection.

Senator **Sasser**. But let me briefly summarize my testimony here today. I appear here today to urge prompt action in reauthorizing these very vital nutrition programs. These nutrition programs are in effect, I believe, model Government programs that give back much more in benefits to our national well-being than they cost in taxpayers' dollars. We have a way of judging water projects and other such governmental endeavors on the Appropriations Committee by using a cost benefit ratio.

I would submit, Mr. Chairman and distinguished members of this committee, that using the same formula of a cost-benefit ratio that we get an enormous amount of benefit for the taxpayers' dollars that are spent in these nutrition programs that greatly outweigh their cost. The WIC Program, the Women's and Infants' and Children's Feeding Program, I think is the best example of this point. The National Commission to Prevent Infant Mortality, for example, estimates that very low weight birth is avoided through the WIC Program and other efforts, and it saves the U.S. health care system somewhere between 14 and $30,000 per infant if it was necessary for them to be treated in hospitals.

Educators in the same vein have long recognized the educational value of school lunch and school breakfast programs in enhancing the educational potential of our Nation's children. I am sure that you, Mr. Chairman, have heard teachers tell you that I simply cannot teach children who are hungry, who come to school in the morning with no breakfast. They are sleepy, they cannot stay awake beyond 10 or 10:30 in the morning simply because their blood sugar is so low that they cannot give their studies the attention that they need, and they are not alert and are not receptive to teaching techniques.

I am pleased to report that the 1990 budget resolution which Congress recently adopted clearly recognizes the importance of these nutrition programs. The 1990 budget resolution provides an additional $150 million for an expanded Women and Infants and Children's Program. It also provides some $15 million for expansion of other child nutrition programs in 1990. The new money in the WIC Program will help serve some additional 300,000 eligible women and children, 7,000 of them, I might add, Mr. Chairman, live in my State of Tennessee.

I have seen, I might say parenthetically with my own eyes hunger in my State. I have seen mothers who have testified at hearings I have held in the eastern part of Tennessee in Appalachia who have testified that they do not have enough to eat themselves. Their children do not have enough to eat. The mothers many times toward the end of the month when the money runs out, the food stamps run out, actually go hungry. Many times the father is living at home but simply cannot find work. An unemployed coal miner or perhaps work in a shoe factory or apparel factory that has closed down as those industries have moved offshore.

So I have seen hunger with my own eyes and I know how vital these programs are to helping these people who simply cannot help themselves. But in Tennessee and the Nation only about 50 percent of the eligible population is served by the WIC Program. Indeed, in 1987, my State of Tennessee had over 5,500 low weight births. WIC served about one-quarter of these high risk pregnancies during pregnancy and another 25 percent of these pregnancies were served after the infant was born.

Yet about half of these low weight babies were still not served by the program at all. Now as the chairman noted at the outset, our State of Tennessee has taken aggressive steps to expand the Woman and Infant and Children's Program even with the limited resources that are available. In the last few years, the State set up a competitive bidding process that has sharply reduced the cost of a can of infant formula for the WIC recipient by more than 80 percent, reducing the cost of can infant formula by 80 percent by competitive bidding.

Now this cost containment effort which was pioneered in Tennessee has spread to other States and has done a great deal to extend the resources of the WIC Program. Now on the Child Nutrition front, Memphis, Tennessee has led the way in developing a unique Nutrition Education Program for students, for parents, for teachers and for cafeteria personnel in public schools. If such a program is adopted on a national level, I do believe we are going to see substantial benefits across the country.

Now Mr. Chairman and distinguished members of this committee, as you reauthorize the nutrition legislation before you, I would like to recommend the following. That Medicaid, Food Stamp, AFDC recipients should be deemed automatically to meet the income eligibility of the WIC Program. If they then meet the nutritional qualifications of the WIC Program, they could begin receiving its benefits.

This, I think, will bring more WIC services to high risk pregnancies. Suitable changes in the WIC Program should be made to help bring on more nurses and more nutritionists to serve the WIC clientele. As the program expands, it needs these health professionals to make the program run on a cost effective basis. And that is one of the strengths of this program. It is cost effective. It is a model program. It is well-run, and I think that is one of the reasons that it has almost universal support. On the child nutrition front, I would recommend the creation of a national food service institute that could help assist school districts in developing model nutritional programs like the one in Memphis, Tennessee.

This institute could help school districts more efficiently manage our $4 billion National School Food Service Program. And that is big business, a $4 billion national program. In a land as rich as we are fortunate enough to live in, we really cannot tolerate the specter of hunger among children, of hunger among infants. So I wish this committee well as they reauthorize this legislation, and I stand ready to assist in any way that I can. I want to thank you, Mr. Chairman, and Chairman Leahy, the chairman of the full committee, and Senator Boschwitz for being kind and courteous enough to hear my testimony today.

[The prepared statement of Senator Sasser follows:]

PREPARED STATEMENT OF HON. JIM SASSER, A U.S. SENATOR FROM TENNESSEE

Chairman Harkin, Chairman Leahy and Senator Boschwitz. It is a great personal pleasure for me to appear before this subcommittee hearing today on the Women, Infants and Children (WIC) Supplemental Feeding Program and child nutrition entitlement programs.

NUTRITION PROGRAMS WORK

We in Congress face a dilemma. We are well aware of the crisis faced by the children of this country. We are familiar with the alarmingly high rates of childhood poverty and infant mortality in this country.

Yet, at the same time, we are limited in our fiscal resources. We know we must be very careful in targeting our resources to the most effective programs that address this national crisis.

As Chairman of the Budget Committee, I am more well aware of these resource constraints than most Senators. That is why I firmly believe we must redirect spending by investing in programs that give back more than they take, programs like WIC.

Our highest priority must be meeting the needs of the most poor and disadvantaged members of our society. But we must do so through programs that emphasize cost-effectiveness, early intervention and prevention. WIC has these characteristics of a modern government program we should all support:

- WIC is a cost effective program that provides services to pregnant mothers and infants early on when a real difference can be made (the National Commission to Prevent Infant Mortality claims that every low birthweight baby that is avoided through WIC and other efforts could save the U.S. health care system $14,000 to $30,000);
- WIC emphasizes prevention unlike many costly Government health programs that encourage and pay for expensive acute care;
- WIC targets and reaches those with the highest medical risk and opens up access to other health and nutrition services.

Few programs in the Federal budget can claim this kind of performance record. To save lives and dollars in the long run, we in Congress should be moving toward full funding of the WIC Program.

In the past year, numerous independent reports have emphasized the importance of WIC and other nutrition including, alleviating hunger, mortality and illness among American children. These reports have come from a wide variety of organizations including both political and business leaders: National Commission to Prevent Infant Mortality, Committee for Economic Development, American Agenda (coauthored by former Presidents Jimmy Carter and Gerald Ford) Council on Competitiveness and the Ford Foundation.

Perhaps more importantly than these reports, we are all personal witnesses to the success of WIC. We have seen how WIC reaches the poorest women and kids of our States providing them not only with the most nutritious foods but also with nutrition counseling and other health services. We have heard time and time again how prenatal and post partum assistance through the WIC Program has *made the difference* between life and death, health and sickness for pregnant mothers and newborn babies in our States.

1990 BUDGET HELPS NUTRITION PROGRAMS

I am pleased to report that the fiscal year 1990 budget resolution approved by both the Senate and House of Representatives includes an increase for the WIC Program of $150 million above the Congressional Budget Office (CBO) baseline. This would allow WIC to be funded at a level of $2.158 billion in 1990.

Accordingly, both the Senate and House reports include strong language urging the appropriators to provide this increase which could add more than 300,000 eligible women and children to the WIC Program.

I am also pleased to report that the conference agreement on the budget also includes $15 million in new entitlement authority to expand child nutrition programs in 1990. This additional funding will allow your committee to make significant improvements in the Summer Food and School Breakfast Programs.

I understand that later today you will be hearing testimony from the American School Food Service Association. Shirley Watkins, who is the president of the association and was available to appear before the subcommittee today, is a special friend of mine from Memphis, Tennessee. Shirley ably directs the food service program for the Memphis school system.

Shirley and her colleagues serve in the front lines in the national effort against hunger and undernourishment among children. Each day more than 62,000 free or reduced price meals are served to eligible children in the Memphis schools.

But that is not enough for Shirley. Shirley Watkins and her professional staff have organized a unique nutrition education program for students, parents, teachers and cafeteria workers because they know the benefits of a healthy diet in the development and educational success of these children. I support the effort in Congress to set up a national food service institute modeled after the Memphis program to prepare standardized nutritional curriculum and to assist school districts in managing the $4 billion national school food service program.

I have always felt very strongly about the importance of these programs in meeting the nutritional needs of needy Americans, especially children. That is why I promised earlier this year that these nutrition programs would be my number one priority in my new role as Chairman of the Budget Committee.

WIC especially enjoys strong bipartisan support in Congress, even during this period of austere budgets. On the Budget Committee, as well as on the Agriculture Committee, Members of both parties support the $150 million WIC increase in the budget resolution. Indeed, the recent letter sent to the Senate Appropriations Committee advocating the full $150 million increase for WIC was signed by a total of 73 Senators including 49 Democrats and 24 Republicans. I look forward to working with Chairman Harkin, Chairman Leahy and other members of the Agriculture Committee who serve with me on the Appropriations Committee to secure this funding level for WIC.

Mr. Chairman, the WIC Program has strong support in Congress because of one key factor: WIC works! We all have seen in our home States the impact that WIC has in reducing infant morbidity and mortality.

TENNESSEE AND WIC

My region of the country, Mr. Chairman, is not only the poorest but, not surprisingly, has the Nation's highest infant mortality rate. Tennessee ranks 36th in the Nation, not as bad as other States in the South but still unacceptably high. In Tennessee, 11 out of every 1,000 babies die within the first year of birth. Among blacks in Tennessee, the mortality figure is 19 out of every 1,000 babies.

In some of the poor, rural areas of my State, I understand that uniformed women without access to WIC or other health services intentionally malnourish themselves during pregnancy. They believe that it is better to have low birth weight babies to facilitate an easier delivery.

These are the barriers we are up against and this is why WIC must be our first line of offense in our war against ignorance, illness and poverty.

To gauge the impact that the WIC Program has on a State like Tennessee, let me provide a few facts and figures:

- Some 36 percent of pregnant women, infants and children in the State of Tennessee meet the income guidelines for WIC (185 percent of poverty).
- Of the 68,000 babies born in Tennessee in 1987, 28,000 or 40 percent were served by the WIC Program in either the prenatal or post partum stage.
- In 1987, Tennessee ranked 45th nationwide with 5,536 low weight births or 8 percent of all babies born. WIC served 26.6 percent of these high risk pregnancies during pregnancy and another 24.6 percent postnatally only.

- In spite of the effectiveness of WIC, only 51.3 percent of the eligible population in Tennessee is served, approximately the national average.

In virtually every State WIC, serves a larger purpose than maybe some of us in Congress realize. At the local level, WIC is used as a carrot, as an inducement. Once on the program, WIC mothers are informed of other health services provided by the State.

In most counties of Tennessee, for example, our WIC clinics serve as one-stop, full-service centers. Once a WIC mother comes to a clinic she is offered a variety of other services for her and her baby: full prenatal checkup, infant followup visit at home, childhood immunizations, information on Medicaid and food stamps, advice on preparing food budgets.

So WIC is achieving even more than its immediate objective. It helps provide the glue of an integrated public health system targeted at the most vulnerable and least informed in our States. By bringing women and kids into this health network early on, it not only reduces the risks of illness or death in infancy, but provides the opportunity to avoid future health, educational and social problems among the most disadvantaged members of our society. I am convinced that we can avoid the exorbitant societal costs of paying for these problems later by investing modestly in WIC today.

TENNESSEE AS NATION'S INNOVATOR IN WIC COST CONTAINMENT

While we in Congress should provide whatever we can to move toward full funding of the WIC Program in the near future, we should also acknowledge the efforts of those who administer the program to expand food assistance and services to more and more deserving women and children. I am proud that my own State of Tennessee has been the innovator in this area.

For years, three major infant formulas exercised a virtual monopoly on the sale and distribution of infant formula in this country. The high price of infant formula was impeding expansion of the WIC Program in States like Tennessee where one-third of all infant formula purchases are made by WIC clients. So the State set up a competitive bidding procedure that quickly drove down the costs of infant formula bought through the WIC Program.

Let me give you an idea of how this works. The normal price of infant formula in a store is $1.68. By contract, the infant formula company will provide a rebate of $1.34 per can to the State for every can purchased by WIC clients. In effect, the Tennessee WIC Program now pays only 34 cents per can .

The resulting savings has been instrumental in allowing statewide participation in WIC to increase by 12,000 (16 percent) from 1987 to 1988. Most States across the country are following the Tennessee model by implementing cost containment systems of their own. Like Tennessee, they are using the substantial savings they realize to significantly expand their WIC caseloads.

LEGISLATIVE IMPROVEMENTS IN THE WIC PROGRAM

Before I conclude my remarks, I would like to make some recommendations to the subcommittee for improvements to the WIC Program.

1. *Expand program services by giving States more flexibility.*—I recommend that the WIC reauthorization bill you are now drafting change the funding formula to allow States to expand program services to accommodate growing caseloads by hiring more nurses and nutritionists at WIC clinics.

As I described earlier in my testimony, we need to remember that WIC is not just a food program but a full-service program providing health and nutritional counseling to participants. States with successful cost-containment initiatives have increased WIC participation by hundreds of thousands of women and kids. However, they do not have sufficient flexibility with their funds to expand health and nutrition services to all new participants.

They are hamstrung by current Federal law which allocates 80 percent of funding to food expenses and 20 percent of funding to program services and administrative expenses. I urge the subcommittee to change the 80/20 formula to a "per participant" allocation of funds for program services which would take into account increases in participation.

2. *Improve coordination between WIC and other Federal programs.*—Additionally, I would like to urge the subcommittee and full committee to take measures to improve coordination between WIC and other Federal programs serving the same needs population. Most importantly, participants in Medicaid, food stamps or AFDC should automatically be deemed to meet the income eligibility requirement for WIC. These participants would still be required to meet the nutritional risk criteria to be

served by WIC. However, duplication in determining income eligibility would be avoided thus saving agencies and participants time, energy and money.

3. *Support breastfeeding promotion.*—Tennessee currently has a model program funded by the U.S. Department of Health and Human Services (HHS) to promote breastfeeding as an alternative to infant formula for low-income babies. I support efforts to set up a similar program within the U.S. Department of Agriculture (USDA) to promote breastfeeding among WIC mothers.

I feel very privileged that the subcommittee invited me here today to testify. Thank you.

Senator **Harkin**. Senator Sasser, thank you very much for taking your time from your busy schedule to be here to make those comments in person, and again, I want to, on behalf of the rest of the subcommittee and the full committee, thank you for working so hard on the Budget Committee to get us the money that we need, not only to fund these programs but actually to make sure we can make some headway in some of the other feeding programs.

I am talking about the funding, the additional money over the WIC Program, over the budget baseline, I appreciate that very much and the other moneys for doing something with the Summer Feeding Program and the Breakfast Feeding Program. I am very appreciative of your work on the Budget Committee to get that accomplished.

Senator **Sasser**. Thank you, Mr. Chairman.

Senator **Harkin**. I would like to recognize, before you leave, the distinguished chairman of our full committee, Senator Leahy.

STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM VERMONT

The **Chairman**. Chairman Harkin, my good friend Rudy Boschwitz and Jim Sasser, I cannot really add to what Senator Sasser said. I agree with it so strongly. I do want to compliment Jim Sasser for the work he has done on the budget, and in fact, he has been a strong supporter of WIC ever since he has been here in the Senate.

Certainly Chairman Harkin and Senator Boschwitz, I want to compliment both of you for the work you have done here. When I first came to this committee, I remember Hubert Humphrey, another Senator from Minnesota, and Bob Dole and George McGovern, telling me how one of the areas that united them was WIC. This is the kind of bipartisan support WIC has gotten and I think it is very helpful.

I yield to nobody in this country in my support of WIC and I commend you for having these hearings. As I say over and over again, in the United States it goes beyond being an economic or a political issue. It is really a moral issue with the enormous reserves of food we have in this Nation, the ability more than any other significant power in the world, the ability to provide food, to raise food, to have surpluses of food. We fail as a nation, we fail morally as well as politically and all other ways if we do not feed our children; if we do not make sure that every child is able to be fed and can at least have that start in life at a time when they need somebody else to watch out for them when they have absolutely no choice in what they do themselves. So I compliment you, Tom, and Jim and Rudy very, very much for what you have done here.

Senator **Boschwitz**. I would say to Chairman Sasser that he was correct when he said that the WIC Program really does have as close to universal support as any that I am familiar with in the Government. Indeed, Tennessee has been a leader in WIC cost containment and has really helped define some new ground for many States. Also, the chairman of the Budget Committee is one of the reasons for the broad support that the WIC Program has. So we welcome you here today.

Senator **Sasser**. Thank you very much.

Senator **Harkin**. Thank you again, and Mr. Chairman, I also want to say, Jim, that when Chairman Leahy took over this committee as the chairman, usually the first opening session is sort of the chairman's session to lay out his program and policies for the committee, and I think it is a mark of his leadership and his interest in this area that he used that occasion to speak specifically about hunger in America and the need to have adequate nutrition for our people, and I really appreciate that very much, Pat, very good.

The **Chairman**. Thank you.

Senator **Harkin**. I would ask unanimous consent to insert in the record a statement by Senator Kit Bond of Missouri.

[The prepared statement of Senator Bond follows:]

Prepared Statement of Hon. Christopher S. "Kit" Bond, a U.S. Senator From Missouri

Mr. Chairman, I thank you and my colleagues on the Agriculture Committee for giving me the opportunity to testify on what is an extremely important program for the poor in my home-state of Missouri. Although I am not a member of this subcommittee, I have long been a strong advocate of the WIC Program and plan to follow this debate very closely.

The WIC Program enjoys a very strong following in this committee and in this body, largely because of its proven success as a preventive health program for the poor. Not only are clients' lives healthier, but the Medicaid budget is healthier as a result of money spent on the proverbial ounce of prevention rather than the pound of cure.

Missouri conducted a study in 1986 of all prenatal women receiving WIC assistance and of women who did not receive WIC nutrition counseling. Missouri found that for every $1 spent during that year, nearly $2 were saved on Medicaid reimbursement for care for premature and low-birthweight babies during the first 60 days of life. There is evidence to suggest that children healthy at birth stand a better chance to remain healthy throughout childhood, and that good nutrition enhances cognitive development. Thus it is likely that the investment in the prenatal WIC Program pays off all the way down the line.

As a member of the Senate Budget Committee, I have generally refrained from advocating increased appropriations for ANY programs. However, it is my belief that an INVESTMENT in the WIC Program does not cost, it PAYS. I believe that the 69 signatures on the letter to subcommittee Chairman Harkin advocating increased appropriations for WIC is a welcome change from Congress' usual inclination, which is to overreact to crises rather than preventing them in the first place.

This is not to suggest that the current program needs no improvements. In fact, the request from administrators in my State for more discretion to use money for administrative expenses makes me wonder whether we in Congress have buried the WIC staff with too many requirements, or perhaps a~~re forcing WIC~~ to undertake purposes far beyond the original intent of the program. WIC staff from St. Louis tell me that with the additional requirements that have been heaped upon them by recent Congress', they have been forced to speak to their clients at breakneck pace in order to complete the requirements and serve everyone.

I would ask my colleagues to evaluate the question of more administrative discretion in a larger context. Are we asking too much of the WIC Program and diluting its original purpose? Are there administrative improvements which can be made to the program, such as streamlining the eligibility requirements and bringing them in line with Medicaid, to reduce the paperwork burden? This would certainly be more desirable than increasing the administrative budget. Even if we decide that States need more than 20 percent of the allotment to carry out health screening and nutrition education, we should do whatever we can to make their mission easier.

Missouri's WIC Program, under the direction of Dick Blount, has taken a lead role in administration of the program and has developed an innovative data system which pulls together data from all of the relevant agencies within the State about a particular person receiving public assistance to target more effectively those eligible, but not now receiving, WIC assistance. These types of improvements, it would seem to me, could reduce the need for additional administrative money.

I thank the committee for giving me a few moments to talk about one of my favorite programs.

Senator HARKIN. Our next witness will be Scott Dunn, Acting Administrator of the Food and Nutrition Service of USDA. I cannot believe we do not have John Bode testifying again. I think ever since I have been in Congress John Bode was here to testify about this issue. I see him in the audience. I recognize him here. You can come up here closer if you want. Why don't you come up here. I think this is going to be the Boschwitz and Harkin show here today.

Mr. Dunn, welcome to the subcommittee. We have your prepared statement. It will be made a part of the record in its entirety. What we would like to do around here, again in the interest of time, is if you could just sort of summarize your statement, and I am sure that both Senator Boschwitz and I would like to ask some questions. Thank you.

STATEMENT OF G. SCOTT DUNN, ACTING ADMINISTRATOR, FOOD AND NUTRITION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC; ACCOMPANIED BY GEORGE A. BRALEY, ACTING ASSOCIATE ADMINISTRATOR

Mr. DUNN. Mr. Chairman, Senator Boschwitz, it is a pleasure to be here this afternoon to discuss the reauthorization of the child nutrition programs. I am accompanied by Mr. George Braley, the Acting Associate Administrator of the Food and Nutrition Service.

CHILD NUTRITION PROGRAMS HAVE BEEN A SUCCESS AND DESERVE CONTINUED SUPPORT

We believe that the child nutrition programs have been a success and deserve continued support. We can all agree that our Nation's children, and the taxpayers as well, deserve the most nourishing and cost-effective programs we can devise.

The Bush administration's proposal for the School Lunch Program, School Breakfast Program, the Child Care Food Program, the Summer Food Service Program and the Supplemental Food Programs is to support these programs at levels substantially higher than their 1989 funding levels. The President's Budget would not reduce funding levels for the child nutrition programs. Furthermore, the administration supports the continuation of all the child nutrition meal subsidy programs, including the reauthorization of the Nutrition Education and Training Program (NET).

Specifically, the child nutrition programs, including the national School Lunch Program, the Child Care and Summer Food Programs, and associated administrative expense funds would be funded at $4.9 billion as compared to $4.6 billion in fiscal year 1989.

NUTRITIONAL ASPECTS OF THE NATIONAL SCHOOL LUNCH PROGRAM

We are certainly aware of the nutritional aspects in the School Lunch Program. Recently, there has been considerable attention paid to the fat, sodium, and sugar content of the food provided in these programs. We want to assure the committee of our continuing and abiding concern in this area. My testimony goes on to summarize a number of initiatives we have undertaken to reduce these levels of those items.

We also continue our efforts to make both the meal pattern guidelines and the food that USDA provides contribute to overall healthy eating patterns for children.

FEDERAL REVIEW EFFORT

I know there has been an interest among the committee members about the School Lunch Program's Federal review effort that we have underway. I just want to take a second to explain what it is and what it is not, to dispel, if possible, some of the misperceptions surrounding the system.

USDA does have overall responsibility to ensure the integrity of the School Lunch Program. Federal review is a project to assess and improve the accuracy of school lunch claims. We have carefully designed Federal review to complement, *not duplicate*, the ongoing State review systems under the School Lunch Program regulations. Therefore, schools subject to review under the AIMS system are *not* subject to Federal review in the same year.

CONCERN FOR ACCURACY OF THE SCHOOL LUNCH CLAIMS

We began undertaking the Federal review effort in March of 1989, and all of the 203 reviews planned will have been completed at this time. Our preliminary results show that there is a basis for our concerns about accuracy of the school lunch claims.

We have found that several of the school food authorities had schools claiming more free meals than the number of eligible students enrolled.

Schools have not always consolidated claims properly. In one large western School Food Authority (SFA), an error was uncovered during a Federal review that prevented an overpayment of about $250,000.

NOT ALL REVIEWS UNCOVERED PROBLEMS

I would like to point out, of course, that not all the reviews uncovered problems. In fact, many exemplary operations were reviewed. This reinforces our belief that the regulations governing school lunch accountability are appropriate and achievable, and that we should focus our review efforts on those schools and school districts where there are most likely to be problems.

TRAINING COMPONENT

We also have a training component as well as part of our efforts. These plans were coordinated and developed in close consultation with representatives of the school food service industry. It is vital that we take advantage of their insight into the best methods for providing training and technical assistance concerning accountability.

MONEY DEVOTED TO FEDERAL REVIEW HAS A POTENTIALLY GREAT PAYBACK

We believe that the relatively small amount of money devoted to Federal review has a potentially great payback in reducing overclaims for school lunches and in maintaining confidence that dollars spent by the taxpayer on school lunches are well-spent. In short, a quality program means both a nutritionally sound program that appeals to our children, and a program that is accountable so that it appeals to the taxpayers as well.

WIC AND CSFP

Next I would like to turn to the supplemental food programs for Women, Infants and Children (WIC) and the Commodity Supplemental Food Program (CSFP). The fiscal year 1990 administration budget requests would more than support continuation of these programs and increases in funding to offset inflation. This is partly due to additional funds being available from the funds generated through cost containment programs initiated by States in the WIC Program.

We estimate that during fiscal year 1990 States will save more than $300 million through rebates on infant formula sold to WIC participants. These funds should support increases in WIC participation of approximately 700,000 persons every month.

PARTICIPATION LEVELS IN WIC

Regarding participation levels in WIC, it should be noted that WIC has experienced a major growth spurt recently, in part attributable to these cost containment efforts, and in part due to steadily increasing appropriations. For example, from fiscal years 1985 to 1988 the WIC Program experienced a 20 percent increase in appropriation levels. Since 1980, WIC participation has doubled to almost 4 million participants a month. With regard to the coverage in the WIC Program, it is doing a good job of reaching the most needy persons. Over 30 percent of all infants in the United States today receive WIC benefits. Certain States are reaching virtually all of their potential eligibles.

As WIC funds become more available, and the program begins to reach more of its eligible population, current program design and further growth could possibly result in a number of undesirable effects for the program.

At some point, we may want to examine the need for more standardized criteria to determine who is and who is not at nutritional risk for WIC purposes.

Short of this, we have initiated some actions to contain the trend toward relaxation of nutritional risk criteria. Since the committee expressed particular interest in the problem of uniformity of risk criteria among States, my prepared statement goes into further detail on this subject.

VENDOR MANAGEMENT AND INCREASED BREASTFEEDING

Briefly, I would like to spell out what we are doing at the Federal level in the areas of vendor management and increased breastfeeding rates since there has also been interest expressed there.

Senator **Boschwitz**. Increased what rates?

VENDOR MANAGEMENT

Mr. **Dunn**. Breastfeeding rates.

On vendor management, we are proposing new regulations to strengthen and improve vendor management. Some of the proposed changes include requiring States to be more selective during the vendor authorization process, requiring annual mandatory training of all vendors, establishing uniform criteria for identification of high risk vendors and requiring compliance investigation of authorized vendors starting with those identified as high risk.

In addition, USDA is redesigning its major report for tracking the status of State agency vendor management. The report will allow USDA to identify and share successful methods to identify problem vendors. In December 1988, we issued an instruction calling for the sharing of data on vendors authorized in both the WIC Program and the Food Stamp Program so that a disqualifying violation in the WIC Program would also result in a disqualification from the Food Stamp Program.

REGARDING PROMOTION OF BREASTFEEDING

Regarding promotion of breastfeeding, the best way to feed infants, which also leads to considerable cost savings, is through increased breastfeeding rates. Promoting breastfeeding among the WIC population is a critical required component of nutrition education offered to WIC women. Although we do not collect specific data on the rates of breastfeeding among the WIC population, we do know that, like the low-income population at large, the rates are lower than in the general population. Increasing rates among WIC participants continues to be a challenge, and we continue to strive to improve efforts in this area. We have a number of strategies underway. I have a factsheet that I brought along with me that we would be happy to provide as well.

That concludes my formal testimony, and of course, we will be happy to answer any questions. Thank you.[1]

[The prepared statement and submitted material of Mr. Dunn appear at the conclusion of the hearing.]

Senator **Harkin**. Thank you very much, Mr. Dunn. Let me start just where you ended then. Well, I have a supplemental appropriations meeting at 3 o'clock. I cannot believe it. On the breastfeeding program, do you know what the current rate of breastfeeding among participating mothers in the WIC Program is? Do you have any idea? Do we have any data on that?

Mr. **Dunn**. It is approximately about 10 percent.

Senator **Harkin**. So 10 percent of those that are nursing. I mean in that area, the post partum area; right?

---

[1] See pp. 69–72 for "Efforts to Promote Breastfeeding in the Supplemental Food Programs."

Mr. **Braley**. Yes. Mr. Chairman, the rate is actually higher when they leave the hospital, but breastfeeding rates are around 10 percent at 5 or 6 months post partum.

Senator **Harkin**. One out of ten.

Mr. **Braley**. It is around 36 percent, as I recall, for women initially starting breastfeeding, but there is a decline over time, to about 10 percent by the time the infant is 6 months old.

Senator **Harkin**. Given the present direct advertising campaign for infant formula initiated by Carnation and the likely changes in advertising that other infant formula manufacturers will be forced to make, do you foresee any further decline in breastfeeding among WIC mothers?

Mr. **Dunn**. We certainly hope not, and that is why we do continue to stress through the nutrition education component in the WIC Program when the mothers come into the WIC clinics so that they are made aware that breastfeeding is the preferred way to feed the infant. Breastfeeding education is a mandatory part of nutrition education for pregnant women.

Senator **Harkin**. OK. Are you going to offer some incentives to these women to breastfeed? You mentioned that kind of briefly in your testimony. What kind of incentives are they?

Mr. **Dunn**. We have regulatory provisions in the WIC Program that firmly support the promotion of breastfeeding, including program inducements for women who choose to breastfeed. Post partum women remain eligible for WIC benefits for up to a year if they breastfeed their infants as opposed to 6 months if they do not.

Senator **Harkin**. Do these women know that right upfront that if you breastfeed you can get this for a year? If you do not, you only get it for 6 months?

Mr. **Dunn**. Yes.

Senator **Harkin**. What else? Is there anything else?

Mr. **Braley**. Well, in addition breastfeeding women are given a higher priority status for benefits. If a breastfeeding woman comes in and is otherwise eligible she would be put in a higher priority category than a post partum woman who is not breastfeeding her infant. So in that sense, the benefits would be available, not only longer, but also they would be more certain than for post partum nonbreastfeeding women. Also, breastfeeding women may receive a wider variety of WIC foods than other post partum women.

Senator **Harkin**. Your testimony said that you also allow States to count breast-fed infants as program participants for purposes of administrative funding.

Mr. **Dunn**. Yes, sir, that is right.

Senator **Harkin**. So this gives the States some incentives to also go out and promote breastfeeding?

Mr. **Dunn**. That is correct.

Mr. **Braley**. Mr. Chairman, if I might add?

Senator **Harkin**. Yes.

Mr. **Braley**. One other incentive is that the formula on administrative funding rewards States that are serving higher priority participants, and breastfeeding women by being in a higher priority category also earn the States a better funding arrangement for their administrative costs.

Also breastfeeding is a part of nutrition education, and has been since the program's inception an allowable administrative expense. So there has been emphasis given to that since the program began.

Senator HARKIN. What are the most common nutritional deficiencies found among WIC participants? Do you have any idea about that?

Mr. DUNN. Anemia would be the most common form of nutritional deficiency that is found among the eligible population.

Senator HARKIN. Anemia. What handles anemia? What do you take for anemia? What is it?

Mr. DUNN. The iron rich foods that are provided through the WIC package are included to address the iron deficiencies of WIC's target population.

Senator HARKIN. So the WIC package offers iron supplements?

Mr. DUNN. Yes. Foods provided through WIC that are rich in iron are cereals including infant cereal and iron-fortified infant formula.

Senator HARKIN. Iron fortified.

Mr. DUNN. Yes, sir.

Senator HARKIN. Given the fact that iron absorption rates—and I am stating this as a scientific fact because I have been told that it is—given the fact that iron absorption rates for meats are much higher than that of other WIC commodities, could the addition of meats and vegetables to the WIC commodity package provide bioavailable iron in a more cost efficient manner. Is heme iron essential to these persons, and if so, how does the WIC Program address that need? And if that is a specific nutritional question that you do not feel comfortable in answering here, I would be glad to get a response from you in the mail.

Mr. BRALEY. We probably would like to respond more fully for the record, but we have looked at the issue to some extent, and it is true that the iron in meat, for example, heme iron is more bioavailable. But there is a large amount of iron provided through the cereals which must provide a minimum of 28 milligrams of iron per 100 grams of dry cereal. And so even though the nonheme iron of the WIC cereals is not as bioavailable, there is still a very significant amount of iron provided through these cereals.

It is also important to note that WIC juices, rich in vitamin C, help increase the absorption of the iron from the cereals. Another thing I might mention is the WIC Program has been cited in a recent study as reducing the incidence of iron deficiency anemia in this population. We believe it is the iron-enriched WIC cereals that have been largely responsible for that.

Mr. DUNN. One of the other issues, Mr. Chairman, is the relative cost impact in using meats versus cereals in order to provide the same iron level. Providing red meat that has a comparable level of iron would significantly increase WIC food package costs.

Senator HARKIN. But two points on that. It is the availability of a certain type of iron that is found in meat, the heme iron that is not available in——

Mr. DUNN. The cereals.

Senator HARKIN [continuing]. The cereals. So that has to be supplemented.

Mr. BRALEY. The fact that it is heme iron means that it is more readily absorbed while nonheme iron is absorbed at lower rates, affected by other foods consumed with it. But iron from any source whether it is heme iron or nonheme iron, functions the same way. So while meat is a good source of absorbable iron if you put enough iron in the cereals through fortification and add some vitamin C-rich foods along with it, the absorption is enhanced.

We have done some analysis, Mr. Chairman, on that and could provide that for the record and give you a chance to scrutinize it and discuss it.

Senator HARKIN. I would like to see it. If you have some nutritional studies that show this, I would like to take a look at it.

Mr. BRALEY. We would be happy to share that.

[The USDA nutritional information studies, a letter from Janet R. Hunt, Research Nutritionist, concerning calculations to assess the nutritive value of the WIC food package, and attached table, Nutrient Composition/Per Day can be found on pp. 73-80.]

Senator HARKIN. It is my understanding that meat might provide a more absorbable, readily available source of iron at least at cost effective prices to what you have now in the iron supplements and the cereals and stuff. I would like to take a look at that.

Mr. BRALEY. We will be happy to provide that.

Senator HARKIN. Thank you. You talked about the Dietary Guidelines for children.

Senator BOSCHWITZ. What is heme iron?

Senator HARKIN. I leave it to the experts to tell me.

Mr. DUNN. I will ask Dr. Heimbach maybe to help me on this, but it is the iron that occurs in meat.

Senator HARKIN. Why do you not just stand up and identify yourself and just answer for the record?

Dr. HEIMBACH. I am Jim Heimbach. I am the Acting Administrator for Human Nutrition Information Services, Department of Agriculture. Unfortunately, I am not a nutritionist and would have to call upon experts for an answer to the question. It is a matter of the chemical structure of the iron molecule that is available in different sources. You can find this in advanced chemistry textbook. I certainly would not be capable of drawing the molecular structure of different kinds of iron.

Senator HARKIN. My staff tells me that heme iron is only available in meats and is not available in the supplements.

Mr. BRALEY. That is correct.

Senator HARKIN. That is correct.

Mr. DUNN. We would be happy to provide a definition for the record.

Senator HARKIN. But any nutritional studies that you had that you just talked about here showing the availability of iron in the cereals and how, if you have any that would compare that to meat, I would like to see that too.

Mr. DUNN. Certainly.

Mr. BRALEY. We will be happy to share that.

[The information supplied by USDA concerning heme iron can be found on pp. 81-86.]

Senator HARKIN. In regard to the School Lunch Program, how do you envision your role, again just for the record, Mr. Dunn, your role relative to nutrition and dietary intake among school children?

Mr. **Dunn**. We are concerned and want to make sure that the nutritional aspects of the program are protected. To that end, we have on revised recipe cards, for example, that emphasize lowered amounts of the sugar, fat, and sodium content in meals. We have provided that to 90,000 schools throughout the country in order to assist them in preparing those kinds of meals.

In addition, we encourage the efforts to follow the Dietary Guidelines for Americans to moderate intakes in various items and commodities that we have. USDA provides some 50 to 60 commodities to schools. We have changed our specifications to reduce sugar, fat, and sodium levels in those commodities wherever possible.

Senator **Harkin**. Can and should the Dietary Guidelines be modified for children?

Mr. **Dunn**. That is something that the Dietary Guidelines Review Committee will probably be addressing in their deliberations and considerations. As I understand it, it is sometimes difficult to set quantitative limits on various items contained in the listings of the Dietary Guidelines. I believe one of the concerns is also that it is more difficult to set guidelines for children due to ongoing scientific controversy. But that is something that will probably be addressed by the Review Committee.

Senator **Harkin**. So do you believe that Dietary Guidelines should be modified for children?

Mr. **Braley**. At this point we believe it is premature to go beyond the directional limits that are in the Dietary Guidelines to reduce and moderate levels of sugar, fat, and sodium. There is not in our view a consensus in the nutrition and medical community to go to a more strict quantitative limit for growing children. So our position has been to stick with the general directional advice that is in the current Dietary Guidelines. That is, of course, subject to change as more information becomes available.

Mr. **Dunn**. I am advised by Dr. Heimbach that this is something that the Advisory Committee is looking at. And they will be taking a look at its applicability to children, but the basic problem still does remain about the quantitative limits.

Senator **Harkin**. The cheese program, you know cheese plays an important nutritional role. We buy a lot of cheese. I understand that different types of cheese have widely varying amounts of sodium. You mentioned that somewhat in your testimony. You may not have mentioned it, but I was reading through your statement, and saw that in there. I understand that processed cheese contains one-third more sodium than cheddar and costs more per pound.

Now is USDA taking steps to limit purchases of processed cheese, or are you doing something to specify a reduced amount of sodium in that cheese if they can reduce that?

Mr. **Braley**. Mr. Chairman, right now we are not purchasing a lot of cheese in the Commodity Credit Corporation of any type. Processed cheese is a much more shelf-stable item and one of the reasons that we purchase a lot of it is the fact that it lasts longer. It is not as subject to mold and other types of deterioration. It is a preferred product. We have done some testing on a reduced sodium processed cheese, and this year we plan to field test a processed cheese that has less sodium in it.

Senator **Harkin**. My staff just suggested that the same thing could be said of low fat mozzarella which has lower fat than normal mozzarella that you buy for pizzas and things like that in the School Lunch Program. But how soon? I mean this is something that I think you could do relatively soon, could you not, put out specifications for processed cheese that included a lower level of sodium?

Mr. **Braley**. I may ask Bob Sindt from ASCS who is in charge of the area that acquires the product for us what the status is on a lower sodium specification. I know we have obtained some on a pilot basis and taste tested it. I am just not sure how quickly we will be able to make the product available under that alternative specification.

But it is the kind of thing we are doing with all of the commodities we buy now, looking for opportunities to reduce sodium and fat in particular.

Mr. **Sindt**. Senator, I am Bob Sindt, Assistant Deputy Administrator of the Agricultural Stabilization and Conservation Service. I might just say that we are unsure of children's acceptability and the taste of lower sodium processed cheese—in the absence of doing some testing. Now we have agreed with the Food and Nutrition Service that, if we start purchasing again major amounts of cheese, we would have this new specification and conduct some tests at that time to see the acceptability of the product, both within the school system as well as for storage and other purposes.

We do not want to change the spec and make purchases of products until we know whether they will be acceptable. So we are offering to purchase all types of cheese at this point including mozzarella. But, it is up to the industry to supply that which they have in surplus.

Senator **Harkin**. Thank you. What is the USDA's current role in providing a nutritious lunch as opposed to the vending machines and stuff? Should USDA be given the control over competitive foods during the school lunch period that it had prior to 1981?

Mr. **Dunn**. Mr. Chairman, we believe that the USDA's current policy concerning competitive foods which prohibits the sale of those items during the lunch hour in the lunch room is the appropriate policy for the Department at the Federal level to take. The other issue concerns sales of these foods outside of school hours, which we believe should be a local option and decision.

Senator **Harkin**. Now the difference, as I understand it, is that prior to 1981, the USDA had control over competitive foods throughout the school; is that right? Now is it just in the school lunch room itself?

Mr. **Braley**. Yes. The policy was throughout the school up through the last lunch period of the day.

Senator **Harkin**. Yes.

Mr. **Braley**. And now it is in the immediate vicinity of the cafeteria and only during the lunch hour.

Senator **Harkin**. Do you feel this is adequate?

Mr. **Dunn**. We believe as far as a Federal standard goes that it would be the appropriate role for the Federal Government to play.

The issues concerning other times of day or locations and so forth, we believe, should be left to the discretion of the locals.

Senator **Harkin**. Of course, Mr. Dunn, you know as well as I do that if kids are out there at those vending machines in the morning during their morning break periods or on the way between classes, and they are putting money in and getting a Twinkie or something like that, then that reduces their appetite for a nutritious lunch.

So it is not just during the lunch period. It is before the lunch period when they ruin their appetite with cokes and, as I said, Twinkies and candy bars and things like that. Quite frankly, I would hope that you would take another look at that and extend that beyond the school lunch room and the vicinity of the school lunch room.

Mr. **Braley**. Mr. Chairman, that change in policy was the result of a lawsuit that went to the Federal Appeals Court and overturned our preexisting regulation and said we had exceeded our authority under the law in regulating beyond the cafeteria during the lunch hour. So to change policy, I think we need a statutory change in that particular area.

Senator **Harkin**. I mean if we were to come up with a statutory change, would the administration, would you support it? That is what I am asking.

Mr. **Dunn**. That is something that we would take under advisement and review. But at this point, we have not seen any indications that there is a great or significant problem with the current policy that we have in place.

Senator **Harkin**. I think there is a problem.

Mr. **Dunn**. OK.

Senator **Harkin**. I really do. I think there is a big problem with it, and I have heard about it, not just from school lunch people, but people all over the State of Iowa and people I have talked with about the School Lunch Program and the proliferation of vending machines and vending machine foods throughout the corridors in different places, the locations being in the school. So I really do think it is a problem.

Mr. **Dunn**. We will certainly take a look at it.

Senator **Harkin**. OK. Thank you. Now I am just assuming that if you want to break in on this, you just break in.

Senator **Boschwitz**. I understand you have put out some recipe cards that have been very well received. I'm told the new recipe cards reflect lower fat, sodium, and sugar content. In my State these recipe cards have been well received, and so I compliment you for it. I also understand the Government is buying very little of commodities like cheese that used to be surplus, because there is very little to buy.

Mr. **Braley**. That is correct.

Senator **Boschwitz**. I do not want to interrupt now. I will have other questions about the WIC Program.

Senator **Harkin**. I was just wondering——

Senator **Boschwitz**. You go ahead. You are the chairman.

Senator **Harkin**. I know. You are involved in this as much as I am. Could you tell me what importance you place on the Summer Feeding Program. How important is that in your estimation?

Mr. **Dunn**. We do believe that it does provide a means of providing meals and food assistance to those individuals in those areas that it is operating. We are interested in seeing the results of a pilot project that would allow a new class of sponsors to run the program.

Senator **Harkin**. Would you like to see the current participation level of 1.5 million increased?

Mr. **Braley**. We certainly have no problem with that if eligible sponsors present themselves and are interested in operating the program according to the laws and the regulations. There is not a problem with that issue. Some years ago it was a larger program, and had a lot of problems with various types of abuse, and as a result, the statutes were changed that authorized it as well as the regulations to eliminate some of the categories of sponsors that had been problems.

And as I think you know, we are currently conducting a pilot test to see if some of the smaller sponsors that are privately run, rather than the public organizations and schools we have been dealing with, can operate the program effectively, particularly in rural areas where the program is not widespread and we are eager, as I am sure you are, to see the results of this summer's activities so we can see where we go from here.

Senator **Harkin**. When is that going to be done?

Mr. **Braley**. It is starting right now in the States that have it. It is a summer operation, and since it was just enacted last year, they will be operating this summer. We will have some results late this year.

Senator **Harkin**. There is a budget resolution calling for $15 million and $10 million of that is for the Summer Feeding Program. That is not very much.

Senator **Boschwitz**. Let me ask about the WIC Program. One of the things that we have done is get many of our colleagues—a total of 73—to sign on a letter saying that we would like to get an increase of $150 million over the inflation increase for the WIC Program. As I recall a couple years ago or last year, we had over 50 Senators make a similar appeal, but we did not get the result that we had hoped for. Would you tell me what the administration's position is with respect to such an increase and whether the administration would be receptive?

Mr. **Dunn**. We do believe that the current WIC Program is doing, as I said in the statement, a good job of reaching those most at risk. If the $150 million were to be included as part of the overall bipartisan budget summit agreement and was provided in the domestic discretionary spending authority provisions within that framework, we would not have any objection to the inclusion of those funds.

Senator **Boschwitz**. The administration is part of the negotiations that lead to that budget framework. Is the administration going to be active in seeking that result?

Mr. **Dunn**. That is something that we certainly will be working with the Congress on to reach those agreements.

Senator **Harkin**. But will you be pushing—pardon me for being a little more direct—but will you push for this result, or are you just going to go along with it if the Congress wants it? I mean we want it. We have a total of 73 Senators signing on to the letter asking for the increase.

Mr. DUNN. Yes, sir. We would not oppose any inclusion of those funds. [Laughter.]

Senator BOSCHWITZ. I got that from the first part of his answer.

Senator HARKIN. Maybe he had to reword it again.

Mr. DUNN. The issue is that, as I mentioned, because of the appropriations levels and the increased moneys coming in as a result of the rebates, we will have about 4.4 million persons receiving WIC in 1990. WIC is doing a good job of reaching over 80 percent of the women below poverty, most at risk, and almost 100 percent of the infants below poverty. We are continuing to see increasing participation rates among the children and believe that the funding is doing a good job of getting at those particular categories of recipients.

Senator BOSCHWITZ. WIC is a program that pays off, and it is a program that is efficient. I think that point was made by Senator Sasser as well as Senator Harkin and Senator Leahy.

But I hope that the administration will not just do as we ask, but will have to get some priorities. I hope the Department of Agriculture will be aggressive in seeking this. Of the various programs that I deal with, I know of none that is as effective and has as positive results as the WIC Program. So I am anxious that the administration does take an active role and defines reaching more of those eligible for WIC as a priority worth achieving.

Mr. DUNN. Yes, sir.

Senator BOSCHWITZ. Tell me about the Commodity Distribution Program. I hear that it is working well. I was a supporter of the commodity distribution reform bill that was passed in late 1987. Are you suffering from a lack of CCC commodities to distribute?

Mr. DUNN. The adjustments that were made in the price support mechanisms several years ago have resulted in diminishing amounts of dairy products, cheese and nonfat dry milk, in particular, being acquired by the Department. The other commodities that we are making available to the schools and outlets as bonus items, the flour, cornmeal, honey and so forth do remain in sufficient inventory levels to continue those operations. But the dairy products as a result of the changes made have resulted in fewer acquisitions.

Senator BOSCHWITZ. Is there much nonfat dry milk around? What is available? Butter?

Mr. BRALEY. Butter is still available, Senator.

Senator BOSCHWITZ. I understand we also just sold butter to the Soviet Union. Let me ask about the infant formula rebates that some of the States are negotiating. That is being much more broadly done now, I gather; is that correct?

Mr. DUNN. We anticipate having virtually every State with an infant formula rebate by 1990.

Mr. BRALEY. Most States will have a plan to proceed in that direction by the end of this year and have one implemented shortly thereafter.

Senator BOSCHWITZ. What impact will the infant formula rebates have on the number of people served by the WIC Program? Do you have a sense of those figures?

Mr. DUNN. We anticipate next year when all of the States do have the infant formula rebates in place to generate over $300 million in savings which should support an additional 700,000 persons in the program every month.

Senator BOSCHWITZ. Mr. Chairman, I see the long list of witnesses that we have before us this afternoon. So I will restrain my questions.

Senator HARKIN. OK. Thank you very much.

Senator BOSCHWITZ. Thank you.

Senator HARKIN. Thank you very much, Mr. Dunn.

Mr. DUNN. Thank you.

Mr. BRALEY. Thank you, Mr. Chairman.

Senator HARKIN. Next we will have Beverly Lowe, president-elect of the American School Food Service Association, Memphis, Tennessee. I understand, Beverly, I misspoke. I had Shirley Watkins from Memphis, Tennessee. You are really from Hampton, Virginia.

Mrs. LOWE. Yes, sir.

Senator HARKIN. And I know that you are accompanied by Mary Klatko, chairman of the Public Policy and Legislative Committee of American School Food Service Association; and Annette Bomar, chairman of the State Directors' Section and the director of child nutrition for the State of Georgia.

STATEMENT OF BEVERLY LOWE, PRESIDENT-ELECT, AMERICAN SCHOOL FOOD SERVICE ASSOCIATION (ASFSA), HAMPTON, VA; ACCOMPANIED BY MARY KLATKO, CHAIRMAN, PUBLIC POLICY AND LEGISLATIVE COMMITTEE, ASFSA; ANNETTE BOMAR, CHAIRMAN, STATE DIRECTORS' SECTION, ASFSA; AND MARSHALL MATZ, COUNSEL, ASFSA, WASHINGTON, DC

Mrs. LOWE. And Marshall Matz, our Washington counsel.

Senator HARKIN. Who is he? [Laughter.]

We all know Marshall.

Senator BOSCHWITZ. He is a neighbor, and I am moving out of the neighborhood.

Senator HARKIN. I thought he lived here. I thought he lived in this room. It is good to see you, Marshall.

Mrs. LOWE. Good to see you again.

Senator HARKIN. Good to see you again, too. Welcome.

Mrs. LOWE. Mr. Movie Star. I have to elaborate on that. I bought one of the videotapes from your speech at Hilton Head.

Senator HARKIN. Yes.

Mrs. LOWE. And my people say, oh, what a handsome man and what a good speech he made.

Senator BOSCHWITZ. I think that was me. [Laughter.]

Mrs. LOWE. I just recently showed that to our staff. I wanted them to see the support that we had from you and I really appreciate that and the members do also.

Senator HARKIN. That is very kind. Would they like to move to Iowa.

Mrs. LOWE. I was in Iowa a couple of weeks ago, in fact last weekend. I was at the State University doing a presentation for the Dietetic Internship Program.

Senator **Harkin**. Good for you. Welcome. Come back often. Please proceed. If you could just summarize your statement.

Mrs. **Lowe**. Well, I will. I have three words for you on competitive foods statutory: go for it.

Senator **Harkin**. OK. Do not worry. I will.

TESTIMONY IN THREE PARTS

Mrs. **Lowe**. We do appreciate the opportunity to be with you today, and we would like to do the testimony in three parts. I would like to address the Dietary Guidelines part, and then Mary Klatko would like to address the School Food Service Nutrition and Management Institute, and Annette Bomar will do the monitoring on paperwork reduction, if that is agreeable with you.

Senator **Harkin**. That would be wonderful.

APPRECIATION

Mrs. **Lowe**. We really appreciate your support and the opportunity to speak with you today. The committee has been very supportive of the 1990 budget. We appreciate the fact that the changes in the policy had a lot to do with the questions that the members of this committee asked at Secretary Yeutter's confirmation hearing and the letter that was sent by Senator Lugar and others on January 24 to Secretary Yeutter. It has been a real long time since we have had any opportunity to go for reauthorization outside the context of a budget debate. We thank you.

The ASFSA is 65,000 members strong, and we serve some 24 million USDA school lunches and some 4 million school breakfasts. And we feel that in 1946, when the program was first enacted, the reason we were put into existence was because of nutrition deficiencies. Our men could not pass the physical examination for World War II reup.

REAUTHORIZATION BILL

Under reauthorization we would like to address the fact that child nutrition programs are a large and complex Federal initiative that would be greatly improved by the Child Nutrition Reauthorization Act of 1989.

We support startup funds for the School Breakfast Program, and expanded eligibility of private and nonprofit organizations to sponsor the Summer Food Service Program for Children, and a little sideline, our Summer Feeding Program that we sponsor starts Monday. We also support expansion of the Nutrition Education and Training Program, the proposed improvements in the Child Care Food Program, and the Special Supplemental Feeding Program for Women, Infants and Children (WIC).

And I would like to say to the WIC folks keep on getting those healthy babies because when they come to school to have breakfast and lunch with us, they are going to learn a lot.

Senator **Harkin**. That is true.

DIETARY GUIDELINES

Mrs. **Lowe**. Under the Dietary Guidelines, sir, the Surgeon General has recently stated that 5 of the 10 leading causes of death in

America are related to diet. The National Academy of Sciences in its recent report entitled "Diet and Health: Implications for Reducing Chronic Disease Risk" examined at length the relationship between diet and disease. It is only reasonable to expect parents and the media to be asking more and more questions about the nutritional quality of school meals, and as you know, they do, and we have to respond.

We are very proud of the School Lunch Program and very proud of the quality of the meals that we serve our children. Our organization has endorsed the USDA/HHS "Dietary Guidelines," and we have written to every food processor in the United States that sells food to schools asking them to follow the "Dietary Guidelines." Did we do good?

Senator HARKIN. That is good stuff. Thank you. Have you gotten any responses?

Mrs. LOWE. I cannot say that because they do not come directly to me, but I would follow up on it if you like because I would like to know too.

Senator HARKIN. Maybe Marshall could help tabulate those for me.

Mrs. LOWE. Marshall could help tabulate that for you. I think it is good that we did that.

Senator HARKIN. It is good.

SPECIFICATIONS

Mrs. LOWE. We have worked with this committee on the commodity distribution reform legislation and asked the Secretary to modify the specifications of USDA commodities with an eye toward the "Dietary Guidelines," which they have done. And you asked some good questions on that. We believe we need to do more in this area, and we need to keep the leadership with the Department of Agriculture in this area, too. As you know, our "1989 Legislative Issue Paper" (attached to the prepared statement) strongly supports the changes in competitive foods and you have a copy of the issue paper that we had at the legislative action conference.

The Secretary of Agriculture, in coordination with the Secretary of Health and Human Services and the Surgeon General, we feel those three groups should develop Dietary Guidelines for Children, which could then be applied to the School Lunch Program. In asking for Dietary Guidelines for Children, it is important to point out that we do not have any preconceived notion as to what they should say or whether they should be quantitative or qualitative. In the absence of sound, consensually based nutrition information for children there is a vacuum into which any self-appointed expert may venture, and they have ventured, sir. If the consensus in the scientific community is that children below the age of 20 should not restrict their fat consumption, then we need to be advised. If, on the other hand, those children over the age of 2 should limit their fat consumption to a particular level of energy then we need to know that also and we need to know how to handle that.

The provision in the legislation which calls for the development for Dietary Guidelines for Children is an important step forward, and it does need USDA leadership in cooperation with the Surgeon General and HHS. Mary.

TESTIMONY OF MARY KLATKO

Ms. **Klatko**. Mr. Chairman, it is indeed a pleasure for me to appear before this committee, and I thank you for the opportunity.

ASFSA ENDORSES A SCHOOL FOOD SERVICE INSTITUTE ON NUTRITION AND MANAGEMENT

On behalf of the American School Food Service Association, I would like to echo Senator Sasser's endorsement granting the Secretary of Agriculture the statutory authority to establish and maintain a School Food Service Institute on Nutrition and Management. The creation of such an institute is an idea whose time has come. With the increased financial pressure on every local school food service authority and the increased attention by parents and the public on questions relating to health and nutrition. It is therefore imperative that the school nutrition programs have the necessary research and development to support sound management practices.

We see the institute as a facility that can assist the 18,000 school food service authorities in providing high quality, nutritious, and cost-effective meal service to children. The institute would assist with menu planning, layout and design of facilities, delivery systems, financial management, the efficient use of computers, food quality and safety instruction, procurement procedures and quality assurances, and most importantly, with the implementation of the USDA/HHS "Dietary Guidelines" discussed by our president-elect Beverly Lowe.

The national School Lunch Program is the largest food service system in the country, operating in some 90,000 schools. It is simply not reasonable to expect each school food service director to be able to address each of the highly technical elements of the school food service programs without any research and technical assistance backup from the Department of Agriculture. We, therefore, strongly support an authorization creating the School Food Service Institute on Nutrition and Management. I would like also to thank this committee for its strong support and deep commitment to the child nutrition programs. We are moving forward thanks to your concerted efforts. Annette.

TESTIMONY OF ANNETTE BOMAR

Ms. **Bomar**. It is a pleasure for me to be here with the distinguished committee members. We have had some prominent Georgians who have served on this committee, and we are very proud of those things that they have done to contribute to child nutrition.

MONITORING AND PAPERWORK REDUCTION

Over the last decade the Government has made a major effort to deregulate a number of areas. Regrettably, however, our track record in the Child Nutrition Program has not been so good. We have, in fact, gone in the opposite direction in many of our program areas related to paperwork. The School Lunch Program is far more cumbersome, far more complex, and much more difficult to administer today than it was even 10 years ago. I served as a local director from 1974 to 1978 before joining the State agency, and significant changes have made the program more complex since then. Documentation, verification, and excessive monitoring reviews, all of these things make it more difficult for us to do our job at the State and local level.

Just a few weeks ago, April 21, 1989, President Bush commended us for the important contribution that we make to our Nation's schools (attached to the prepared statement). With all due respect, however, we would need to respond and say that his commendation is coming at a time when it is even very, very hard for us to continue to carry out our mission of providing high quality nutritious foods to the Nation's children under the constraints of ever increasing paperwork.

These constraints come at a time when there is more public demand for heightened quality and heightened nutritional services to children. Many States have taken the initiative to reduce paperwork in a variety of their programs, and we would hope that this committee would see the need also.

NEW INDEPENDENT AUDIT

As you know, this year's appropriation bill is seeking an additional $6.4 million to implement yet another, new, additional, independent audit of school meal claims that you heard USDA referring to. ASFSA, the American School Food Service Association, does not support the Federal Review System (FRS).

We appreciate your efforts, Senator Harkin, last year during the appropriation process and your ability to help us direct USDA's efforts toward training and helping to fix any problems related to accountability as opposed to just finding more problems.

This is new funding that they are asking for this year, and would, in short, establish a legion of Federal auditors to audit local programs which are already being audited by State auditors, and it appears to us to be a clear redundancy of effort.

The American School Food Service Association emphatically supports integrity in program accountability. We do share with USDA the common goals of the Federal Review System. However, we feel like that the procedures are the process for getting to that goal, we do have significant differences in opinion on.

THERE SHOULD BE ONE COORDINATED SYSTEM OF MONITORING LOCAL PROGRAMS

We feel like that there should be one coordinated system of monitoring local programs and that this system should take place under the auspices of USDA's evaluation of State agencies. This would give USDA an opportunity not only to look at local programs during their evaluation of State agencies but also to look at State agencies to see how effectively they are, in fact, implementing regulations.

USDA should be required to coordinate with State audits, not duplicate these State audits. USDA has said that their efforts do not duplicate our AIMS reviews. However, State agencies under the current Federal Review System will be responsible for all followup to their reviews and for any corrective action that is done as a result of their Federal reviews. This is clearly duplicative. USDA should work with local administrators, and help train local administrators, and State people in a cooperative approach to this common goal that we do, in fact, share. We have attached to our statement some suggested language for a coordinated monitoring review system which would, in fact, use the USDA evaluation of State agencies as the primary vehicle.

ITEMS THAT WOULD REDUCE PAPERWORK

We also have several other items that we would like to suggest for paperwork reduction and to improve general administration.

The first is to omit the requirement in the statute that all adult household members provide their Social Security numbers on the school lunch application; Social Security numbers could be collected at the time that applications are chosen from verification. The need to provide Social Security numbers greatly impedes the application process and is, in fact, not used in the application process. It was added by statutory authorization as a deterrent. However, it does currently serve as a barrier to children who need to participate in this program. It also generates a technical error that could be picked up on any kind of review activity.

A second item is to establish reimbursement procedures that do not require the schools to count all 24 million children by category every single day during the school year. Given our sophistication with statistics and computers, we are confident that program integrity can be maintained without a categorical count having to be taken every single school day.

Third, we would also like to allow children who are members of food stamp households and AFDC assistance units to be "automatically eligible," to receive school lunch and breakfast without having to complete any further application process for the meals. And this can be done at the local level by coordinating activities with AFDC and food stamps. Currently the law does, in fact, grant automatic eligibility, but they are required, however, to fill out an application which again can generate technical errors that could be picked up in a review process.

Fourth, we would also like to simplify the income reporting requirements so that each adult household member is not required to list their income by source and to make applications for free and reduced price meals valid for more than one school year.

Fifth, we also would like to eliminate the requirement that States execute a new contract with each school system or each school food authority every single year.

Sixth, we would also like to simplify the statutory requirements for the annual nutrition education and training State plan, which currently generates about 50 pages just in guidance.

Mr. Chairman, we would like to attach to our testimony also a summary of some paperwork reduction recommendations and priorities that have been developed by our Association, and we would very much appreciate your consideration of these initiatives.

Mrs. Lowe. In summary, we appreciate the fact that you allowed us to testify. We are here to answer any questions that you might have in regards to the Child Nutrition Reauthorization Act of 1989. Thank you.

Senator **Harkin**. Thank you very much, all of you, for your fine testimony.

There is a couple of things I do want to cover. It has to do with three basic areas, the Dietary Guidelines. How effective has USDA been and you mentioned we should have these special Dietary Guidelines for Children. As you noticed, the Department testified today that they thought the present system was all right.

Mrs. **Lowe**. I think we are looking for something in writing that says it is all right to give 40 percent fat that if there is nothing there that it says it should be less. We get mixed messages from the American Academy of Pediatrics. We get a different message from the Heart Association, and then the public out there says that they have a better idea of how we should feed children.

I am not saying we need to have milligrams, micrograms and whatever's. All I am saying is if we could make a stand saying that over the age of 2 it is all right to have a certain level of fat or a certain level of sodium and sugar. I am not saying we have to go into this quantitative or qualitative, either one. I just think we need to come up with some statement because we are caught in the middle, right on the firing line. We get it from everybody, every media source and every parent that has a cholesterol problem for five meals a week. We only feed them five meals a week if you only do the lunch program. But we have to address that problem.

I am not saying we should not. I am just saying that we need some guidance in doing it. And I think the Department of Agriculture and ASFSA can work it out. But we need to look at some other sources. I think the two of us along with HHS, Health and Human Services, and the Surgeon General need to look at what kind of statement we need to make in regards to child nutrition.

Senator **Harkin**. We are going to get into that. Secondly, Beverly, on the competitive foods, the vending machine foods?

Mrs. **Lowe**. Yes, sir.

Senator **Harkin**. I am not certain that I understand clearly what it was like before 1981 and the changes that were made. What was this? Do any of you know historically what authority the Department had prior to 1981? I guess I could look it up.

Mrs. **Lowe**. Well, we had a regulation that was sent down through the agency from the State department that said, in essence, there was no food to be sold in or around the cafeteria or in the schools from the beginning of the first school bell till after the last lunch was served. And some States even had in addition to that during the school day, and now it only says during the lunch period.

And you know, we can address that. If you have a breakfast program, you have machines going, who is going to eat? Are they going to go to the machine, the breakfast, or what?

Senator **Harkin**. Yes. Well, we are looking, as you mentioned, at the statutory changes in there. If they exceeded the regulatory authority then==

Mrs. **Lowe**. The Department is correct, though. They were taken to court.

Senator **Harkin**. Yes, sure, on the regulations. What I am trying to say is that do you feel it is important enough?

Mrs. **Lowe**. Yes, sir.

Senator **Harkin**. Does your organization feel it is important enough to address this statutorily?

Mrs. **Lowe**. Yes, sir. Definitely.

Ms. **Bomar**. Yes. We need a strong statute.

Senator **Harkin**. Lastly, on the program review system, will the Federal Review System impose additional administrative costs on the States and school food service agencies?

Ms. **Bomar**. Yes, it is currently doing that. As a matter of fact, States which have received these reports which are being delayed, the Federal review reports are not getting out to States on the schedule they had promised us that they would. When we receive those reports, we have to coordinate with the local school districts in response to those reports on a timely basis. After the final report comes out, the States then will be responsible for coordinating all and any followup to make sure that all deficiencies are, in fact, corrected. So we will be providing followup not only to their reviews but we will also be doing the followup to our reviews also. And our audits also.

So it will generate additional work on the State agencies. My personal position and that of the State directors is that we have the potential within an existing system to enhance accountability where there are isolated problems by dealing more effectively with the regulations.

I use as an example the new AccuClaim regulations that go into effect July 1 could have required State agencies to have targeted school district for their AIMS reviews, but even those regulations did not do that. So I feel like there is a lot of room within the existing system, and I do think it is very important that State agencies participate actively with USDA in this process through the USDA evaluation of the State agencies.

Mrs. **Lowe**. I might add something about AccuClaim. It is an enhancement of the AIMS, you heard earlier. The administrative book to get the regulations and to administer it on the local level and the State level is 150 pages. If you are talking about paperwork reduction, sir, this is what I received from my State and training session just last week to implement AccuClaim. And there are some of the same things in the Federal review that is already in the AccuClaim. Maybe we need to let one system work before we start another one.

Ms. **Bomar**. We feel like that possibly the AIMS procedures could have been more refined by USDA and, for example, our current procedures do not require a State agency to even reclaim funds on the first AIMS review. That procedure will, in fact, be changed. Also, there are a lot of fixable items that USDA is identifying in their Federal Review System that under a State review would not be fixable. So some of the potential reclaims under the Federal Review System will eventually shake out, not to be reclaims at all because they are being interpreted as being fixable.

Some of the standards that are being used under the Federal Review System are, in fact, weaker than standards that are currently being used by some State agencies.

Senator **Harkin**. The administration's testimony pointed out that they had 203 reviews planned that will be completed this week. As of May 1 of this year, 134 reviews were completed. The administration said their preliminary results show there is a basis for their concerns about the accuracy of school lunch claims, and he mentioned three different items or findings.

Several SFA's had many schools claiming more free meals than number of eligible students enrolled. In three urban districts 50 schools claimed more free meals than the number of eligible children. The amount of the claim in these three districts may exceed $1 million.

Third, schools have not always consolidated claims properly. In one large western SFA an error was uncovered during a Federal review that prevented an overpayment of $250,000. What say you to that?

Ms. **Bomar**. Well, what I would say is under the management evaluation of the State agency, I feel like that is an appropriate time for USDA to look at what the State agencies are doing to identify problem school districts and to help those school districts correct their problems because that is a responsibility of the State agency to do that.

These school districts that are being referenced here, you are probably going to be able to, when everything shakes out, count on one or two hands. There are school districts that had previously in most cases been identified by the State agency. There are many that were previously in the rollup audits and the audit summaries that they used to initiate the Federal Review System. In most cases, they are large urban settings, and some of the paperwork reduction recommendations that we have made would address some of the technical errors that are so easily made in large urban school districts like counting children by category every time they come through the lunch line.

You are not supposed to overtly identify a child if he is economically needy, but you have to know when he comes through the lunch line whether he is, in fact, free or reduced or paid. That is a very difficult task to do. I do not care how automated and how slick you get. It is very difficult to do. The number of technical errors, the potential for technical errors is very high because of a lot of the excessive requirements that we have in our program area, and we think that we can be more creative in how we get at meal counts. We could avoid a lot of this point of sale counting or miscounting that might have the potential.

But from my understanding in having tracked this, these are generally large urban school districts where they have many problems just related to keeping children alive during the school day, much less counting meals by category at lunch time. And there is no reason for this kind of error because school districts do have the potential for establishing accountability systems that will, in fact, work.

And for the first time in the next school year, USDA has imposed, through regulation, a requirement that local school districts will, in fact, monthly edit their daily and their monthly counts by every school. That is a brandnew requirement. Again, if we had had something like that 10 years ago when we thought there was a problem in some particular settings we feel like those problems would have been alleviated by now.

Mrs. LOWE. Well, can I tell you I am already doing what she says we have to do. We have been doing it for 4 or 5 years. The only thing I want to share with you is that in the Federal Review System, there is zero percent error rate on the school food authority. You cannot make an error. There is zero tolerance. Yet when some of the reviews were done, the Department of Agriculture team made a 47 percent error rate.

Senator BOSCHWITZ. Made a what?

Mrs. LOWE. Forty-seven percent error rate.

Senator BOSCHWITZ. You have to be from the Deep South to——

Mrs. LOWE. To understand me. Sorry.

Senator BOSCHWITZ [continuing]. To be an officer of this group apparently. [Laughter.]

Well, Mr. Chairman, I just have a couple of questions. You have been so thorough. I understand our staffs are working with the USDA to try to work out some of this, and Marshall, I am sure you are involved in that as well. They have been looking at how to reduce the duplication in reviews and how to resolve some of the conflicts of the sometimes overly regulative environments between the State and Federal reviews. I certainly would approve of that kind of a simplification.

I did not quite understand your comment about supplying Social Security numbers.

Mrs. LOWE. On the application every adult member of the household must supply a complete Social Security number before we can approve the application.

Senator BOSCHWITZ. Every adult?

Mrs. LOWE. Every adult member 21 years and over. So it is an incomplete application if all those people do not put it in. They have to put their age down and their Social Security number. We do not use that information in determining who gets the meal. It is the income and the number in the family.

Senator BOSCHWITZ. I see.

Mrs. LOWE. During the verification you have to verify some things and this could be done at that time.

Senator BOSCHWITZ. I also looked at better coordinating of these programs. Many of the programs have different requirements. At one time I had looked at having similar requirements for all these types of programs and found it quite difficult to do. But it would seem to me, particularly in some of these nutrition programs that we could do it.

The interrelationship of them is important so that a person participating in one program should have another program available. I think that is a sensible approach. We will continue working on that.

Ms. BOMAR. If I could give you one example of that. I spoke to the Food Service director in Miami in Dade County, and he has students who, during the summer, are eating free meals without any kind of certification at all in the Summer Food Service Program because of the site, and then on the first day of school they have a very difficult time—a lot of these are immigrant populations—trying to get people to understand why they can no longer get a free meal without going through the application process even though they may be AFDC, food stamps, or whatever. And that is a perfect example of what you had just cited.

Mrs. **Lowe**. If we had universal free meals, you would not have us sitting here every year and the Department of Agriculture could do something else with its staff.

Senator **Boschwitz**. Is that an incentive that we will not have them back?

Ms. **Bomar**. Get rid of us?

Mrs. **Lowe**. I say give us free meals for everybody, a universal meal supplement, we will not have a problem.

Senator **Harkin**. Just lastly just for the record, these increased costs for this Federal Review System, who is going to pay for it? Who finally pays those increased costs? How is it paid for?

Mrs. **Lowe**. Well, I worked—when they come into the division, I tested the forms. I did not have a review, but I actually tested the forms. We absorbed it within our own district, the time that we spent doing those type of things. Now Annette can talk from the State level.

Ms. **Bomar**. Well, States varied in their activities. In my particular State and in a large number of States, I know, they actually had State personnel accompanying the Federal reviewers because we feel like that is a role that we should play because our school district personnel know us, not the Federal personnel. And we are going to have to eventually work with them to solve any problems.

So we absorb the cost of having our staff actually onsite during all the Federal reviews in every school that they reviewed. That was not a requirement, but it is something we opted to do because we felt like we needed to be as much aware of what the findings were in the school district if we were going to have to do the followup of the Federal reviewers. So the States and the locals are absorbing a great deal of cost increases as a result of their presence.

Senator **Harkin**. OK. I guess what I was getting at is that basically the program itself really pays the increased cost? It comes out of the program itself.

Ms. **Bomar**. Yes, because those people are paid from programs——

Senator **Harkin**. Again, I say if we give them $6.4 million for this, do you think we will recoup $6.4 million?

Mrs. **Lowe**. I have no idea.

Senator **Harkin**. I mean I am all for program efficiency.

Mrs. **Lowe**. We are too.

Senator **Harkin**. Sure. Making sure these things run right. I am involved in another committee of mine in the audit program for HCFA, administering the Medicare Program. But there we have shown, GSA has shown that for every $1 we put into the audit review, we are recouping well over $8. I think it is about $10. For every $1 we put in we are recouping $10.

I would daresay that I do not think that is the case with the school food service, School Lunch Program. That you might be putting in $8 to recoup $1.

Ms. **Bomar**. Well, States have good documentation that we will shortly be able to provide you about actually the man-hours that were spent by USDA staff to perform these reports which is very much greater than what State agency personnel are able to afford to even spend when they go into a school district.

So I think we will have some concrete data to show to the committee that it is not cost effective in terms of looking at what they are able to do in relationship to what we are able to do. And one thing that you will note is that they are asking for increased appropriations from the $5.2 million that they were appropriated for a 2-year period of time last year to a $6.4 million appropriation that they are getting for the next 2-year period of time.

You will note that States receive approximately $4 million annually, and their allocation is going to equal close to what the States are appropriated on an annual basis, and ours has not been increased since 1982, the $4 million allocation for our AIMS program which is our key accountability for States. And that is a constant figure of $4 million annually. But we do feel like current systems can address this issue.

Senator HARKIN. OK. Well, listen, we are running late so I have to move. Thank you all very much for all that you do and for being here today, and I am sure that we will be in contact as we go along and markup this legislation this summer.

Mrs. LOWE. I am not far away.

Senator HARKIN. Not very far. Thank you all very much.

Mrs. LOWE. Thank you.

Ms. BOMAR. Thank you.

Mrs. KLATKO. Thank you.

[The prepared statement and attachments of Mrs. Lowe (ASFSA) appear at the conclusion of the hearing.]

Senator HARKIN. Next William Gahr, Associate Director, of U.S. Food and Agriculture Issues, Resources, Community, and Economic Development Division, General Accounting Office. Mr. Gahr, welcome to the subcommittee. Your prepared statement will be made a part of the record in its entirety. Again, we are just running late. If you could summarize it, I would certainly appreciate it.

STATEMENT OF WILLIAM E. GAHR, ASSOCIATE DIRECTOR, FOOD AND AGRICULTURE ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE, WASHINGTON, DC; ACCOMPANIED BY ROBERT ROBERTSON AND HARRY WOLFE

Mr. GAHR. Thank you, Mr. Chairman. We can summarize this quite quickly. I brought two of my colleagues with me. Mr. Wolfe on my far right and Mr. Robertson on my immediate right.

DAIRY DONATIONS TO THE SCHOOL LUNCH PROGRAM—CHART 1

We are here to discuss dairy donations to the School Lunch Program, and there are three items that we would like to discuss with you today.

CHART 2

If you take a look at chart No. 2, Dairy Donations to the School Lunch Program (Bonus and Entitlement), of course, are dependent upon CCC Surplus Purchases (Dairy) (chart 1). CCC purchases peaked in 1983, and have been falling since 1983 until 1988. In

1988, 9.7 billion pounds were purchased. This is a 42 percent drop since 1983.

The second chart deals with the School Lunch Program itself and donations to the School Lunch Program. From 1978 to 1987, dairy donations to the School Lunch Program increased. From 1987 to 1989 they have dropped by 24 percent from 275 million pounds to 208 million pounds.

Senator **HARKIN**. That is cheese? What were you just talking about? Cheese?

Mr. **GAHR**. The top line is cheese, the other lines are butter and nonfat dry milk. We have all three there on that chart (Dairy Donations to the School Lunch Program (Bonus and Entitlement)).

Senator **HARKIN**. Nonfat dry milk has dropped too, has it not?

Mr. **GAHR**. All of them have dropped since 1987–88. That is a direct reflection of CCC purchases.

CHART 3

If we take a look at the third chart (Cheese Donations to the School Lunch Program (Bonus vs. Entitlement)), which is for cheese in particular, you can see the split between bonuses and entitlement. In the 1980's, of course, the bonus portion of the split for cheese was considerable. It was almost totally bonus from 1982 to 1988. Now you are beginning to see that that bonus portion is being reduced, and in 1990, the Department estimates that there will be no bonus cheese for the School Lunch Program.

Senator **HARKIN**. In?

Mr. **GAHR**. In 1990.

Senator **HARKIN**. None?

Mr. **GAHR**. None.

Senator **HARKIN**. So we will be back where we were in 1977 then?

Mr. **GAHR**. Right. You see the entitlement portion in 1989 is beginning to increase.

Senator **HARKIN**. Yes. How important? Well, go ahead and finish. I will ask you later.

IMPACT THAT REDUCTIONS IN DAIRY DONATIONS HAVE HAD ON THE SCHOOL LUNCH PROGRAM

Mr. **GAHR**. All right. Another item that we would like to discuss is the impact that reductions in dairy donations have had on the national School Lunch Program. We surveyed 20 State officials in 20 different States to determine what it was they were doing to adjust to this bonus reduction.

We asked them two questions basically. First, what was the nutritional impact on their States as a result of the bonus reduction? Eleven States said that there was neither a positive nor a negative impact on nutritional value. Eight of those States further volunteered that, by law, they are expected to provide a balanced nutritional diet in the School Lunch Program, and so they are covering in other ways. Five States believed there was a negative nutritional impact. They believed this as a result of a calcium and protein reduction from the dairy bonus reduction.

The second question we asked State officials was what did they do to react to reductions in bonus dairy donations? How did they react, and what future action might they take? Thirteen States moderated use of dairy products in their school lunch programs, either in quantity or in frequency of use. Eight States purchased additional dairy products with either State money or local money. Two States increased the price of the school lunch to the students. In future years, 14 States expect an increase in prices to the students of between 5 cents and 25 cents.

Senator HARKIN. OK. So they have cut back a little bit on the amount of dairy products they provide in the lunch?

Mr. GAHR. That is right.

Senator HARKIN. But obviously there is a point below which they cannot go if they want to meet their Dietary Guidelines. So then they have to start increasing the price. Is that what is happening?

Mr. GAHR. They are cutting back on the dairy frequency.

Senator HARKIN. Yes.

Mr. GAHR. They are substituting for bonus donations by buying some products with moneys of their own. In future years, they are probably going to increase the price. They are also substituting other products for dairy. It depends upon how those different schools react to the types of foods, and what they can substitute.

DAIRY NEEDS FOR THE NATIONAL SCHOOL LUNCH PROGRAM

The third item that we would like to discuss are dairy needs for the national School Lunch Program. We talked to nutrition experts at the National Academy of Sciences, the Food and Nutrition Board, NIH, and the Food and Nutrition Service to try and understand what would be the nutritional need for dairy products. In effect, all nutritionists have a consensus, and that basically is that you cannot determine the need for a particular food for the national School Lunch Program or for any particular diet. Diets are a function of RDA's, of building up certain nutrients that can come from all sorts of different types of foods. RDA's differ by age, sex, and physical condition. This concludes our testimony.

Senator HARKIN. Are you expecting those lines to keep going down very precipitously on like, well, cheese? You say yes, it is going to go right down; right?

Mr. GAHR. Well, that is the trend.

Mr. ROBERTSON. According to FNS officials, the availability of the bonus portion of cheese will be zero for 1990. However, there will be some available under entitlement.

Senator HARKIN. Since that is bonus and entitlement——

Mr. ROBERTSON. Right.

Senator HARKIN. How much is bonus and entitlement?

Mr. ROBERTSON. For 1989?

Senator HARKIN. Oh, I see; I understand I have to correlate those two. I understand. So the whole thing was bonus before; right?

Mr. ROBERTSON. Yes, sir.

Senator HARKIN. So now when it is not bonus it will have to be made up through the entitlements?

Mr. ROBERTSON. Correct.

Senator HARKIN. That is going to cost us more money, will it not?

Mr. **Wolfe**. It will not cost us more money. It will cost the schools more money ultimately because they will either have to use their entitlement portion or pay for it themselves. The bonus commodity cheese was free. It was not applied against either cash or entitlement.

Senator **Harkin**. So the school districts will have to come up with it. They will have to increase the price to the kids or they have to come up with it some way.

Mr. **Wolfe**. Absolutely.

Senator **Harkin**. Yes. Did you look in your review, did you check to see—I know that they did not give you specifically the need for dairy products—but did you see whether or not if there are substitutes for dairy products, what the cost relationship might be? Does it cost more than the dairy products, less? Especially if you factor in the bonus program?

Mr. **Gahr**. Good question. We did not look at that, and we did not——

Senator **Harkin**. See I used to chair the Dairy Subcommittee [Livestock, Dairy, and Poultry of the House Agriculture Committee] when I was on the House side, a long time ago, back in the late 1970's, and I remember looking at some figures at that time where the cost of the CCC program. When you took into account storage costs. Well, first of all, just the actual physical taking and the storage costs of some of the dairy commodities, that it really was a very cost effective means if, in fact, you decide that they should have the dairy products. It was a very cost effective way of doing it. That way anything that would take its place would be more costly either to the program, to the students, to the school district, somebody. So I am just wondering about that cost.

If for example, you say you have dairy products, what else can you get that will provide the same nutritional needs with other foods. How much would those other foods cost, for example, in relationship to the dairy products?

Mr. **Gahr**. Well, that is good question. We can pursue that.

Senator **Harkin**. I might like to know that.

Mr. **Gahr**. The fact that we got the dairy program and storage costs.

Mr. **Wolfe**. Mr. Chairman, excuse me. Given the fact that dairy products are a primary source of calcium, there are not too many other products other than dairy that would provide the calcium that you need on a daily basis. There are some green vegetables that will do that, but by and large it is the dairy that would provide the calcium.

Senator **Harkin**. Yes. Then the kids need the calcium, I guess.

Mr. **Wolfe**. Yes, sir. There are some substitutes but they are few and far between.

Senator **Harkin**. What would be the average price increase to school lunches nationally next year? Do you have any idea about that?

Mr. **Wolfe**. We have a range of 5 to 25 cents.

Senator **Harkin**. Wait a minute. Are you telling me that school lunches will increase between a nickel and 25 cents next year?

Mr. **Wolfe**. Yes, sir, depending on the——

Senator **Harkin**. As a national average?

Mr. WOLFE. Depending on the State. It is not a national average. It depends on the States, and it is based on the 20 States that we had contacted.

Senator HARKIN. Based on past analysis, past trends, based upon past statistics of what we actually have, we know that when the price of school lunches go up, so many kids drop out. Based upon what you have just said about a possible increase of 5 cents to 25 cents, can you give us the parameters of how many kids may possibly drop out? Again, just based upon what the past record has been?

Mr. WOLFE. There was an indication in getting the information that there would be some participation reduction if an increase was imposed in some States, but they did not quantify it.

Senator HARKIN. Could that be done?

Mr. WOLFE. It may be done on a State by State basis, and then we could provide you a national estimate.

Senator HARKIN. Yes. I guess the only way you could estimate it would be based upon what has happened in the recent past when it went up by so much, so many, and I do not know if that is realistic or not, but we do know that every time it has gone up, kids drop out of the program.

Then when they drop out of the program, the cost per unit goes up to the students that are left. The cost goes up. The students who stay in will pay it, and for the free lunches, the cost goes up to the taxpayers because the fixed cost is already there and everything. We need to get a handle on that.

Mr. GAHR. We would be happy to pursue that for you, sir.

Senator HARKIN. If you can. I do not know what to ask you to do if something is statistically unfeasible.

Mr. GAHR. Well, let us give it a shot.

Senator HARKIN. OK. Thank you.

[The information from GAO follows:]

The USDA's Food and Nutrition Service (FNS) has examined the correlation between the price of a school lunch and the participation level in the School Lunch Program. According to a FNS official, for every 1 percent change in the meal price there is a 0.8 percent change in the participation level. He also stated that, assuming a meal price of $1, a 5 to 25 cent increase would result in a 4 to 20 percent decrease in the participation in the School Lunch Program.

Senator HARKIN. Did you have any questions for GAO?

Senator BOSCHWITZ. I am sorry that I missed your testimony. I presume your indication that meal cost is rising is because of the lack of the bonus commodities?

Mr. WOLFE. In part because of the lack of bonus commodities. I think there are other factors. Inflation is just one of them. The fact that everything else is going up.

Senator HARKIN. Mr. Gahr, thank you very much. I want to thank you and GAO for the services of Bob Andros. He has done great work on all of the nutrition programs and everything we have done here, and has really gotten us together on this whole area.

Mr. GAHR. Well, we miss him.

Senator HARKIN. Pardon?

Mr. GAHR. We miss him back at GAO.

Senator **Harkin**. I am glad you miss him. I am glad to have him here. I appreciate it. It has just been a great benefit to the staff to have his services.

Mr. **Gahr**. Well, good. Thank you, sir.

[The prepared statement and charts of Mr. Gahr appear at the conclusion of the hearing.]

Senator **Harkin**. Appreciate it. Thank you very much.

We are just going to go out of sequence here very briefly. Senator Boschwitz has another commitment, and I just want to get the two individuals who are here from Minnesota, if I might, and then we will get back, Doctor. Carolyn Brown, manager of the Child Nutrition Food Program for the Minnesota Department of Education; Kathy Pool, president of the Minnesota Licensed Family Child Care Association from Dassel, Minnesota.

Senator **Boschwitz**. Dassel, that is right.

Senator **Harkin**. Where is Dassel? I thought I knew Minnesota.

Ms. **Pool**. West central.

Senator **Harkin**. West central?

Ms. **Pool**. Dassel is about 75 miles west of Minneapolis.

Senator **Harkin**. OK.

Senator **Boschwitz**. A little more than halfway to Willmar.

Senator **Harkin**. Willmar. I know where Willmar is.

Senator **Boschwitz**. His wife is from Minnesota. You know how they are from Iowa. They come up and steal——

Senator **Harkin**. Steal your women; right.

Senator **Boschwitz**. Right.

Senator **Harkin**. Bad, bad scene. All right. Well, listen, welcome to the subcommittee. Appreciate your being here, and again if you could summarize your prepared statements for us, I would appreciate it.

STATEMENT OF CAROLYN A. BROWN, CHILD NUTRITION SECTION, MANAGEMENT EFFECTIVENESS SECTION, MANAGER, CHILD NUTRITION FOOD PROGRAM, MINNESOTA DEPARTMENT OF EDUCATION, ST. PAUL, MN

Ms. **Brown**. Thank you very much. I have a prepared statement that is for the record, and I will try to summarize it briefly.

CHILD NUTRITION FOOD PROGRAM

I am Carolyn Brown. I work at the Minnesota Department of Education as the manager of the Child Nutrition Food Program, and that is the program I will speak about today. I am privileged to work with approximately 475 child care centers and 12 organizations sponsoring over 9,000 family day care homes in Minnesota. Kathy Pool, who is here with us today, is one of those family day care providers that I am privileged to work with. Through these organizations, over 60,000 Minnesota children are fed nutritious meals each day.

I would like to thank you and your staff for the support that you have given to all the child nutrition programs.

STRENGTH OF THE CHILD CARE FOOD PROGRAM

I would like to briefly talk about the strength of the Child Care Food Program because I believe it is important that we not lose sight of that strength. In Minnesota, the strength seems to come from a community value or belief in quality child care and standards, as well as from the support mechanisms that have been built into the Child Care Food Program regulations. They mesh together to form a nice cooperative arrangement, and it has worked very well.

Senator Boschwitz has been very much appreciated by me and by other people in the State for all the work that he has done. Thank you, Senator, for that work.

Senator **HARKIN**. He does a few things right.

Ms. **BROWN**. He does.

Senator **HARKIN**. This is one of them.

Ms. **BROWN**. He does. We appreciate it.

Senator **HARKIN**. This is one of his best ones here.

ADMINISTRATIVE COOPERATION

Ms. **BROWN**. One of the mechanisms the Child Care Food Program has utilized is that it is a program where there is a demand for administrative cooperation. States and local sponsors and licensing agencies work very closely with child care providers so that the child care delivery system becomes not only a child care delivery system but also a nutrition delivery system. And that connection has been very strong in Minnesota.

FAMILY DAY CARE IS A MAJOR COMPONENT OF OUR NATION'S CHILD CARE DELIVERY SYSTEM

Family day care is a major component of our Nation's child care delivery system. Approximately 50 percent of the kids in care are in family day care homes. Not always regulated care, however they are in family day care. That is important to recognize. Many people do not understand what a family day care home is. So in my prepared testimony, I have tried to describe family day care. I took the description from the Abt Study of the Child Care Food Program, saying that it is different from center-based care. It is an arrangement in which individuals care for a small number of children in their homes.

Family day care provides flexible care; flexible hours of care, and generally is flexible about fees that are charged for care also. Centers do not have that kind of flexibility, and oftentimes cannot be as flexible about fees as well.

NUTRITION STANDARDS FOR MEALS

The Child Care Food Program is the only Federal program which establishes nutrition standards for meals that are served to preschool children in family day care. Major studies substantiate the fact that children enrolled in Child Care Food Programs through the child care facilities they attend, regardless of their income, significantly benefit nutritionally. We have had several studies, the

1983 Abt Study, Abt study, and the 1988 Abt Study, that have documented the nutritional benefits.

PROVIDES DIRECT SUPPORT AND PROTECTION TO CHILDREN AND FAMILIES SERVED BY FAMILY DAY CARE PROVIDERS

The Child Care Food Program is also the only Federal program which provides direct support and protection to children and families served by family day care providers. And that is becoming more and more important as we look at some of the factors that contribute to some of the abuses of children. Isolation is one of those factors. We do not wish to lose the support the Child Care Food Program gives to family day care. The program reaches out. It assists family day care providers in meeting regulations. It provides continuous training, and it is a program that has an interesting information loop. It is almost a feed forward/feed back information loop.

The program is designed so that standards are communicated, standards are followed, and there is reward for following standards. That makes for a very nice program model or paradigm.

CCFP THE SINGLE-MOST IMPORTANT FACTOR TO WHICH THE INCREASE IN NUMBERS OF REGULATED FAMILY DAY CARE HOMES CAN BE ATTRIBUTED

The Child Care Food Program has also been the single-most important factor to which the increase in numbers of regulated family day care homes can be attributed. In a report that was done recently in Minnesota called "Making Child Care Work," the Minnesota Council on Children, Youth and Families report to the 1987 Minnesota Legislature family day care providers almost always report the major reason they chose to become licensed was to qualify for the Child Care Food Program (CCFP).

The percentage is so high that it is incredible in Minnesota, and we are not the Nation, but it is in the 90 percentile. Nationwide we believe——

Senator **BOSCHWITZ**. Ninety percent of the licensed child care homes use the program?

Ms. **BROWN**. That is correct.

Senator **BOSCHWITZ**. But you are not saying that 90 percent of the child care providers are licensed?

Ms. **BROWN**. No.

Senator **BOSCHWITZ**. So interestingly, a higher percentage of homes are licensed in Minnesota than any other State.

Senator **HARKIN**. Is that a fact?

Ms. **BROWN**. Yes, that is my belief.

Senator **BOSCHWITZ**. Yes. We have the second highest number of licensed day care providers in the country for a State, and as you know, we are the 20th in population. What is Iowa? About 48th? Population?

Senator **HARKIN**. Oh, in population, I do not know where we are.

Ms. **BROWN**. Minnesota has a reputation for child care licensing. It goes back to 1956.

Senator **HARKIN**. I tell you. Minnesota has been one of the best States in this area. I know that just from being a neighbor and being involved in this.

Ms. **Brown**. Thank you.

Senator **Harkin**. Minnesota has been way ahead of everybody else in this whole area.

Ms. **Brown**. I am not sure to what we can attribute that other than the cultural belief in quality child care and in established standards, and it seems that we, as a community value that. We want to have a standard. We want to know that if our children are in care, they are in a place where they are getting the kind of care we believe is important to their growth and development.

Senator **Harkin**. Somebody back in your legislature in the 1950's must have gotten this thing going or something.

Ms. **Brown**. Actually maybe you should take more credit. Maybe the Federal legislators should take credit because in the 1940's, the Lanham Act established Federal standards for child care. We do not hear about them very often, but they are very interesting standards, and I have been doing some research lately so I can learn more about them.

I can get you some more information on that. I do not have it with me now. It was, I believe, a reaction to the need for child care during the Second World War.

Senator **Boschwitz**. Probably the first time there was a need because prior to that mothers stayed home.

Senator **Harkin**. I do know that in 1942 or 1943 there was a child care bill passed by the Congress that went out of existence after the war. Is this it?

Ms. **Brown**. Yes, I believe that is it.

Senator **Harkin**. Oh, I just never knew the name of it.

CCFP MUST START TO MEET THE NEEDS OF MORE OF OUR LOW-INCOME CHILDREN NATIONALLY

Ms. **Brown**. One of the main things that I think is important to talk about is that the Child Care Food Program must start to meet the needs of more of our low-income children nationally.

The 1988 Abt Study showed that nationally, between 81 and 84 percent of the family day care homes are unregulated, and assumes that there are about 6.6 children in each home.

Senator **Boschwitz**. The figure again?

Ms. **Brown**. Eighty-one to 84 percent of the homes in the Nation are unregulated. In other words, unlicensed, unapproved, uncertified; any of the different terms people use for regulation.

Senator **Harkin**. Eighty-one percent?

Ms. **Brown**. Eighty-one to 84. The study also assumes that there are 6.6 children in each of those homes. So we have 3.1 million children in unregulated family day care.

In 1981, the Child Care Food Program was serving 79,920 low-income children, and in 1986, about 115,130 were served. While this was a significant increase in the actual numbers of low-income children served, it is not significant when viewed as the percent of total children served.

UNREGULATED DAY CARE

In 1975, the National Child Care Consumer Survey (conducted for the Administration for Children, Youth and Families) under the U.S. Department of Health and Human Services found that, of low-income children in out-of-home care, three of four were found in family day care, largely unregulated. Now in 1988, if we have 3.1 million children in unregulated care and if we can do any extrapolation and say that still we have three of our children in that care that are low income, we have a large group of children that are not receiving the benefits of the Child Care Food Program.

EXPANDING THE CHILD CARE FOOD PROGRAM

It seems to me that the single-most important factor in reaching those low-income children is expanding the Child Care Food Program, and I say that because I believe that that is the one major incentive for homes to become regulated. This is going to require tremendous cooperation, local, State, and Federal cooperation. Child care communities are going to have to start to look at establishing Federal, State or local standards where none exist, and to identify mechanisms for encouraging unregulated child care providers to become part of the regulated system.

CCFP—WE NEED TO LOOK AT SOME NATIONAL EFFORTS TO RAISE AWARENESS

The Child Care Food Program, I believe, is one of those strong mechanisms. There are some other suggestions that I have delineated in the written testimony. I believe we need more public awareness of this program. The School Lunch Program is visible. The School Lunch Program we can talk about. People can say, yes, I had a school lunch when I grew up, or my kids had school lunch. But the Child Care Food Program has a difficult identity problem. I think we need to look at some national efforts to raise awareness and do outreach to low-income areas, and to continue to improve the nutritional integrity of the meals that are served to the kids.

NUTRITION STANDARDS

We have heard about the nutrition standards. We have heard about the fact that we cannot, right now, with any comfort level, take the nutrition standards that apply to you and me and apply those same standards to young children. It is important that we start to look at what standards should be applied to those young children. So I would like to reinforce ASFSA's concern about nutrition standards.

DEMONSTRATION PROJECT

I would like to also talk a little bit about the demonstration project which thanks to you, Senator Boschwitz, was conducted in Minnesota.

That demonstration project was part of the Hunger Prevention Act of 1988, and what it did was it created a demonstration to show how the fourth meal service in a family day care home could benefit children. We now reimburse through the Child Care Food Program, for up to three meals per child per day in family day care homes. As of July 1, child care centers will be able to be reimbursed for up to four meals per child per day if children are in care for 8 hours or more. And the demonstration project was conducted in homes to show what would happen if we had that same rule in homes.

SOME PRELIMINARY STATISTICS

I have some preliminary statistics that I will give to you.[1] I know Senator Boschwitz likes to see the numbers, so I have gotten them for him primarily. They show that about one-half of the homes in Minnesota chose to participate in the demonstration project. Their participation in the demonstration project increased reimbursement by about $30 a month per home.

The additional dollars that were paid out for the month of March 1989 in Minnesota to participating homes came to $136,000, or $33 per home. The nutrition benefits are harder to get a handle on because it is difficult to isolate what benefit occurred from a particular meal that went to a particular child, but we are trying to get a handle on that. We will be able to have some preliminary results to USDA, and they will be doing analysis. You will be getting the results.

I do think that the data shows that children are in care for a large number of hours in family day care. They are young. They are generally infants and toddlers more often than preschoolers. They need to eat more frequently than older children. Therefore, I believe the data is starting to point to at least support for the fourth meal in family day care homes.

REDUCING PAPERWORK IS ANOTHER AREA

Reducing paperwork is another area. On that issue, I would like to support ASFSA and anyone else. I would like to find a way to maintain the integrity of the program, but to cut down on the paperwork. And to try to update center program eligibility. Right now, we have a situation where we have for-profit centers in Minnesota that are ineligible to participate in the Child Care Food Program because our funding mechanisms for title XX just will not allow them to participate. They may be serving low-income children. However, they cannot serve title XX funded low-income children because counties choose not to put title XX money into child care. So it seems that we need to look at ways to make those children benefit from the Child Care Food Program. There might be suggestions that staff have been given through the testimony that might be able to help.

SUMMARY—CHILD CARE FOOD PROGRAM IS WORKING IN MINNESOTA

In summary, the Child Care Food Program is working in Minnesota. We have a successful program thanks to the cooperation of many State agencies with Federal and local people. I am happy to say that that is working, but I am concerned about the continued availability of the program for our Nation's children.

I administer the program at the State level so I do not see the benefits the program provides to kids every day, but I do hear about it from people like Kathy who both administer the program at a local level and implement it. I have seen the changes that occur when children are properly fed. Thank you very much for your support.

---

[1] See pp. 104-105 for the preliminary statistics.

Senator **Harkin**. Thank you very much.

[The prepared statement and statistical tables of Ms. Brown appear at the conclusion of the hearing.]

Senator **Boschwitz**. Mr. Chairman, I would like to make some comments before we have our second witness. One of my concerns with child care is that many providers do not want to come up above the surface. They do not want to pay income taxes to be very frank. And they do not want to be regulated in any way. I have always seen the Child Care Food Program as an incentive for providers to become licensed. One of the reasons I have pushed for the extra meal or snack, and this is for children who stay more than 8 hours a day, is to make it more appealing for providers to become licensed. I believe in the licensing process.

Frankly, I am concerned about overregulating. I think the ABC bill might do that and push providers underground. One of the ways some say we can prevent that is by getting Social Security numbers, which is why I asked the question about supplying Social Security numbers before. And then you are going to cause problems between day care providers and mothers about whether or not the day care provider wants to give the Social Security number to the mother so that the mother can get the credit.

I see a lot of problems in that particular area. In the child care bill that I have offered—and you know, I am a very practical guy—we have things like access to books and other materials through public libraries. Perhaps a library bus travels around on a weekly basis or a biweekly basis so that the provider has access to the books and other materials. My child care bill also gives some tax credits for home improvements to enable a provider to become licensed. Frankly, many mothers and many families need to have a second income, and yet they want to be with their children.

One of the ways to provide the second income and still be with their own children, is to take in some other children. I think it has worked well in Minnesota. I am pleased that the Minnesota Licensed Family Child Care Association has endorsed the child care bill that I have introduced. My bill does not take the ABC approach. I will ask some questions at the conclusion of Kathy's testimony.

STATEMENT OF KATHY POOL, PRESIDENT, MINNESOTA LICENSED FAMILY CHILD CARE ASSOCIATION, DASSEL, MN

Ms. **Pool**. Thank you. I appreciate the opportunity to speak before the Subcommittee on Nutrition and Investigations. As being part of one of the sponsoring of the child care food programs in Minnesota, I am also president of the statewide Minnesota Licensed Family Child Care Association.

FAMILIES RELY ON THEIR LICENSED PROVIDER TO PROVIDE THE NUTRITIONAL FOODS

Many working families rely on their licensed provider to provide the nutritional foods because of their time line. We know then that the children of providers that participate in the Child Care Food

Program are contributing to balanced, nutritional, and developmental growth which are crucial stages for children.

The Child Care Food Program helps providers offer the nutritious meals, and snacks to the children in the family child care homes. It is an important part of the business that many family child care providers perform to maintain quality care at affordable prices. Without the Child Care Food Program the expense would be assumed by parents or the provider causing both parent and provider the additional stress.

THE CHILD CARE FOOD PROGRAM IS A MAJOR FACTOR FOR LICENSING

The Child Care Food Program is a major factor for licensing, it makes the difference in whether the family child care home continues to operate.

RESULT OF THE ELIMINATION OF THE MEANS TEST

In the early part of the 1980's the elimination of the means test for children being cared for by licensed homes was the result of 90 percent of Minnesota's 13,000 licensed homes participation in the Child Care Food Program.

Providers usually supply two-thirds of a child's daily nutritional needs. With the elimination of the means test and allowing the Child Care Food Program reimbursement for these meals allows no expense to be added on to the parent or the parent bringing a cold lunch every day for their child.

REINSTATING THE MEANS TEST WOULD INCREASE THE COST OF THE CHILD CARE

By reinstating a means test, this would increase the cost of the child care, close quality homes, increase unregulated homes, deprive and decrease the nutritional meals available to all children. Providers are themselves frequently low-income workers. About 35 percent of family child care home providers have an annual income of under $20,000; 17 percent obtain their entire income from child care solely. The means test that is upon the licensed provider, where she or he is not allowed to claim their own children, is a concern to rural providers. In regard to the Minnesota Licensed Family Child Care Food Program, only 14 percent of the providers enrolled are able to claim their own children. The need to be able to claim providers own children has many concerns and views that need to be heard.

THE CHILD CARE FOOD PROGRAM PROVIDES MANY IMPORTANT ASPECTS

The Child Care Food Program provides many important aspects. Ones that the providers feel are necessary are nutritional education, monitoring and technical assistance that the Child Care Food Program offers throughout the year of enrollment.

This helps to support and encourage high quality programs offered to providers for quality child care homes.

Yet there are special needs and demand for continuous technical assistance, nutritional advancement and special outreach in rural areas that are isolated or more costly to administer. Funding needs to be continued and increased for these areas to ensure nutritional, educational, and a high quality child care so all the needs of the children are being met.

ECONOMIC NECESSITY HAS CREATED FAMILIES TO HAVE TWO-WAGE INCOMES, CREATING CHILDREN TO BE CARED FOR WITH LONG HOURS

The economic necessity has created families to have two-wage incomes, creating children to be cared for with long hours. This results in 45 percent of our children in care have two-thirds to three-fourths of their nutritional needs met outside of their own home. By reinstating to the Child Care Food Program the additional meal and snack option: this has allowed providers to continue to offer the high quality nutritional foods at all meals and snacks. Minnesota Licensed Family Child Care Food Program presently has 47 percent of the providers enrolled just on their program, have chosen to participate in this demonstration project. With a random survey, the providers that have chosen to participate have 8 to 10 children in care over 8 hours and do care for 10 to 12 hours. The Hunger Prevention Act of 1988, to reinstate this additional meal and snack with Minnesota as the demonstration project State, overall is showing a positive effect with a higher percentage of low-income families served by in-home licensed family child care providers with long hours. We are able to guarantee quality nutrition in early stages of the children's life. It has created additional administrative cost for the factor not only has the provider seen the increase in paperwork, so has the Child Care Food Program sponsors. With additional funds made available for the next step to include additional moneys for administrative expense, the program will be even more effective.

A MAJOR IMPORTANT ISSUE HAS RISEN FROM THIS DEMONSTRATION PROJECT

A major important issue has risen from this demonstration project. Providers who have children 24 hours or longer are disallowed those meals served to the children. This has caused concern from providers, and Child Care Food Program staff.

CFCP IS A SYSTEM THAT ENHANCES MANY PROVIDERS TO REMAIN AFFORDABLE AND IN THE PROFESSION OF CHILD CARE

The Child Care Food Program is a system that enhances many providers to remain affordable and in the profession of child care. Without the Child Care Food Program, many providers would be forced to raise their rates and close their business. The Child Care Food Program is a crucial part of making the child care profession a quality program for today and the future. Thank you.

[The prepared statement of Ms. Pool appears at the conclusion of the hearing.]

Senator HARKIN. Thank you very much.

Rudy.

Senator BOSCHWITZ. Thanks, Mr. Chairman. I think I will comment more than ask questions. But I do have a question about the forms that have to be filled out. I recently was driving home, and I thought I would take a shortcut. So I stopped at a house where I saw the people were out in the yard. So I drove in and they said that they were child care providers.

I asked if they participate in the Child Care Food Program, and they said, no, it is too complicated. So I dictated a note to my staff and said I would like to see what the care providers have to fill out. This particular person had the first child come at 5 in the morning and the last one leave around 5 in the evening.

So that is a pretty long day, and I suppose at that point you do not want to start filling out forms. But tell me do you think the forms that need to be filled out by a child care provider are too complicated? I have asked my staff to look into them [the forms] and get them all so that we can make a determination for ourselves whether or not they are too overly complex. Again, I think we can draw people into the licensing system as both of you have said by drawing them into the food program. How complicated are the forms?

Ms. **Brown**. At the present time, a provider who chooses to be on the program would fill out an application form giving basic information: her name, address, licensed capacity, those kinds of pieces of information. The form is printed on no-carbon-required paper so they do not have to put carbons in and they sign it and apply. That is the easy part.

Then, there is an agreement that they have to read and sign. That is also very easy. It takes a signature. But on a daily basis, they have to keep track of the menu for each meal that they serve to children and then a count by child's name. That is, Susie Smith ate breakfast would be a mark.

Senator **Boschwitz**. Each meal?

Ms. **Brown**. Each meal, and it is done daily. We recommend that it be done at the point of service. You heard USDA representatives talking a bit about point of service meal counts, those kinds of things, and ASFSA representatives. We say the same thing. Those menus and meal counts are submitted monthly to a local administrative agency that monitors 100 percent of them. In other words, counts 100 percent of the marks indicating a child was served a meal, and reviews 100 percent of the menus. That is a reaction at the local level to audits that were conducted a number of years ago where it was found that sometimes reimbursement may have been paid for meals that did not quite meet that meal pattern standard or where there was "x" mark that was not quite right.

Senator **Boschwitz**. You got to mark in the fact that the kid had breakfast and then lunch and then a snack and then dinner?

Ms. **Brown**. That is right.

Senator **Boschwitz**. And what was on the menu?

Ms. **Brown**. Yes, exactly what was served. So that is the level of paperwork that people are talking about.

Senator **Boschwitz**. Will you see that we receive that?

Ms. **Brown**. Yes, you have.

Senator **Boschwitz**. Is it onerous? Is it burdensome?

Ms. **Brown**. If you are talking to me as an administrator for the Department of Education, Child Nutrition Section, I have to say I believe that is the least onerous of all the records that we require of anyone in child nutrition. We have a history of requiring tremendous documentation for meals served in schools, in child care centers and so on. For family day care homes, it is the simplest. They do not have to prove that a child is low income in order to get the reimbursement rates. So there is a whole level of paperwork there that is not required that would be required in a school.

Senator BOSCHWITZ. Kathy mentioned that.

Ms. BROWN. Yes.

Senator BOSCHWITZ. I will continue to oppose very strenuously a means test because you are never going to get neighbors submitting that type of financial information to one another. That is just unrealistic.

Ms. POOL. May I interrupt for a minute? As a family child care provider, to take and fill out those forms with the menus, you can do it after you are on the Child Care Food Program for 3 months—Carolyn, correct me if I am wrong—going on a cycle menu where you fill it out for 6 weeks, and you can use it over for as long as you choose, which eliminates only one piece of paper, but it does eliminate one of the biggest hassles. For the amount that we are reimbursed for the paperwork that we have to do it is very minimum. And once a provider is set up properly in her home, she will see that it is.

Senator BOSCHWITZ. Maybe this one did not have the patience to.

Ms. BROWN. It may appear overwhelming also because of the training packets that people put together and they may appear to be greater than they are.

Senator BOSCHWITZ. You will send all that to us.

Ms. BROWN. Yes, I believe Gordon has it.

Senator BOSCHWITZ. Oh, Gordon has it?

Ms. BROWN. Gordon has most of that now, and he is looking at it and so is Terri. So I am sure you will have some good information.

Senator BOSCHWITZ. Well, the testimony was quite straightforward, Mr. Chairman. You may have some questions. With between 81–84 percent of the family day care homes in the United States unregulated, we need to provide incentives for them to be licensed.

People obviously are afraid of having to take tests. People are afraid that they are going to be limited in the number of children they can care for. I think that is one of the fears of Federal regulations, that there are going to be new numbers imposed by the Feds, and whether or not they require a firewall here or there. All of these burdensome regulator things are going to drive child care providers underground.

They get about $1.25 or so an hour up in Dassel, I presume.

Ms. POOL. Roughly around that, yes.

Senator BOSCHWITZ. Pardon me?

Ms. POOL. Roughly.

Senator BOSCHWITZ. Roughly, yes, depending on the age and so forth.

Ms. POOL. Right.

Senator BOSCHWITZ. We have an opportunity to do some good with Federal child care legislation if we do not become overly restrictive, and if we pass through all the funds to the parents and providers as directly as possible. I thank you both, Carolyn and Kathy, for coming. Mr. Chairman, perhaps you have some questions.

Senator HARKIN. I just wanted to point out Minnesota has 8,000 home child care sites. Iowa has 1,400. I notice that Minnesota is second only to California.

Ms. BROWN. Those numbers are up a bit of late. As of now we have 11,800 licensed homes in the State.

Senator HARKIN. That is incredible.

Ms. BROWN. It is incredible. It is.

Senator BOSCHWITZ. That is right.

Senator HARKIN. I am going to get that stuff. I want to see why Minnesota has got so many. Thank you very much.

Ms. BROWN. Thank you very much.

Ms. POOL. Thank you.

Senator HARKIN. Dr. Victor Sidel is next, distinguished university professor of social medicine, past president of the American Public Health Association; and Dr. Jonathan Kotch, associate professor, School of Public Health, Department of Maternal and Child Health, at the University of North Carolina at Chapel Hill. Welcome.

STATEMENT OF VICTOR W. SIDEL, DISTINGUISHED UNIVERSITY PROFESSOR OF SOCIAL MEDICINE, MONTEFIORE MEDICAL CENTER AND THE ALBERT EINSTEIN COLLEGE OF MEDICINE, BRONX, NY, PAST PRESIDENT, AMERICAN PUBLIC HEALTH ASSOCIATION AND PHYSICIANS FOR SOCIAL RESPONSIBILITY, NEW YORK, NY

Dr. SIDEL. We know, Senator Harkin, that the time is very late. Senator Boschwitz, if you have just one more second I want to followup on your comments to the Food and Nutrition Service representatives.

Senator BOSCHWITZ. See that our Minnesotans do not escape.

Dr. SIDEL If my written testimony may be put in the record in its entirety I will summarize it extremely briefly. Let me also, if I may, Senator Harkin, because I so much admire your work, may I express sympathy at the death of your friend which caused the postponement of the hearings.

Senator HARKIN. Thank you for mentioning that. I appreciate that.

BACKGROUND

Dr. SIDEL. For the record, I am also past president of Physicians for Social Responsibility, I have been a member of the Physicians Task Force on Hunger in the United States and I was a principal investigator for the New York State Hunger Watch Project.

Senator HARKIN. You met the other day, did you not?

Dr. SIDEL. Yes, sir, we did.

TESTIMONY TALKS ABOUT THE HISTORY OF WIC

My testimony talks about the history of WIC, which I do not have to go over with you. It talks about the accomplishments of WIC, including early enrollment in prenatal care, decreases in the rate of preterm delivery, and significantly reduced late fetal deaths. You know all that. And then it goes on to say, which you also know, that WIC at this point serves less than 50 percent of those who by its own standards are eligible for the program.

My testimony talks about the fact that WIC is, therefore, not a success as the Food and Nutrition Service would have you believe, but a failure. The Ford Foundation, which is hardly a partisan organization, after praising what the program could do, calls it a feeble attempt to meet this problem.

Senator **Harkin**. But they were saying earlier that they are getting almost 100 percent of the at-risk kids in low income.

Dr. **Sidel**. I am going to go into that nonsense in 1 minute, if I may, Senator. That is why I wanted Senator Boschwitz to stay. Very quickly, in my testimony I go on to talk about breastfeeding and the necessity for it and end up with some laudatory phrases at the end for those supporting WIC, which you can read rather than hear me say.

SHOCKING TESTIMONY

What I really want to talk about is, what I, as a U.S. citizen found shocking, that representatives of my Government could sit here at this table from the Food and Nutrition Service and could be as ignorant and as self-serving and as willing to tell half-truths as those gentlemen were. Now just to give a few examples of what I am talking about.

For example, you talked about the fact that they say that 100 percent of eligible "kids" are served. For infants from birth to age 1, they may come close, based on outdated baseline data. But if you really look at whom they are supposed to serve, they serve only 38 percent of eligible children aged 1 to 5. That's far from 100 percent of those who are eligible for the program.

Of all women who are eligible for the program, they serve 59 percent. Of breastfeeding women, they serve only 29 percent. And you know, just as they overall serve less than 50 percent of the people eligible, they tell less than 50 percent of the truth.

For example, they say that certain States are reaching virtually all of their potential eligibles. You need to ask them, please, Senator, what States those are, and you will find that they are areas such as the District of Columbia and Vermont with very small numbers of people in the eligible categories. And for many other States, which they somehow neglect to tell you about, they serve small percentages of those who need to be served. They go into glowing detail about all that they are doing in trying to raise breastfeeding in the program. And when you ask them specific questions about breastfeeding, they come up with the figures which they blandly tell you: at hospital discharge, some 36 percent of the women are breastfeeding and 6 months later some 9 percent are breastfeeding.

They do not tell you that those figures come from Ross Laboratories. The Federal Government has not seen fit to put its own funds into finding out what percent of women are breastfeeding within this program. They do not tell you that among non-WIC mothers in the United States 64 percent breastfeeding at hospital discharge and 25 percent at 6 months. They do not tell you that among our neighbors to the north in Canada at hospital discharge 85 percent are breastfeeding and 3 to 6 months later 50 percent are breastfeeding.

Senator HARKIN. Wait a second. How much is it here of non-WIC?

Dr. SIDEL. You will get all this information, by the way, when Ms. Lazarov testifies. But what it is for non-WIC mothers at hospital discharge in the United States is 64 percent breastfeeding, at 6 months 25 percent. In Canada, at hospital discharge 85 percent and 3 to 6 months later, 50 percent.

Senator HARKIN. Why is it so low for WIC mothers then?

Dr. SIDEL. Because women living in poverty in the United States, in general breastfeed their children less than do those who are not living in poverty.

Senator HARKIN. OK.

Dr. SIDEL. There are lots of factors, factors of social chances, factors of education.

SOME DO NOT HAVE IT SO GOOD

Senator Boschwitz, with all the remarkable things that are being done in Minnesota, and I admire them. As President of the American Public Health Association, I had the opportunity to speak several times in Minnesota. You have a most extraordinary State. But if we look at the United States as a whole, and we look at my State of New York, at the numbers of black kids, the numbers of Hispanic kids, the number of kids living in poverty in New York and in many other States, they do not quite have it so good. And we have to find some ways for the Federal Government to be able to spread those wonderful benefits in Minnesota to everyone in these United States.

THE WIC PROGRAM HAS THE POTENTIAL FOR DOING EXTRAORDINARY GOOD FOR CHILDREN AND FOR PREGNANT MOTHERS IN THE UNITED STATES

Anyway, my bottom line is that the WIC Program has the potential for doing extraordinary good for children and for pregnant mothers in the United States. It has barely begun to meet its potential. To meet its potential it needs more funding, and it needs to have people in the administration running it who know what they are talking about and who want to see it work. At this point, they do neither.

We are talking about an annual increase of $150 million which you especially, Senator Harkin, know is one-quarter of the cost of one B-2 bomber, of one Stealth bomber. So out of 132 Stealth bombers that we are planning to build, one of them will fund this $150 million over the course of 4 years.

Senator BOSCHWITZ. Now come on, Dr. Sidel. I do not mind sitting here and being lectured. I suppose that is part of the business of being a Senator. I do not mind being asked to stay so I can be lectured, but we are not here to discuss the defense of the United States, and if you want to engage in a debate of that, pick another scenario than this.

Also, I have found that not only in the Department of Agriculture, but also in other departments, the administration has to be pushed, and that people who administer programs can be difficult. If they think the program should not be very broadly applied, and perhaps some of the present administrators do not, then they very often just sink the program in bureaucratic practices that make it very difficult to expand the program.

The Senator from Minnesota recognizes that things are a little easier in Minnesota than they are in New York. I grew up in and around New York, so I have a sense of that. But, I recognize also even without being reminded, Dr. Sidel, that I am a Senator that goes beyond the borders of my State. We will push. Senator Harkin will and so will I. We will push the people from the Department of Agriculture. But frankly I do not think that we make much progress by calling them liars or anything else. We will keep pushing them and try to get broader application of these nutrition programs, and I wholeheartedly support these Federal nutrition programs. But I am not sure that I would go at it quite the same way that you did.

Dr. SIDEL. Well, perhaps——

Senator HARKIN. I think Dr. Sidel was probably directing his remarks at me since I am on the Appropriations Committee.

Senator BOSCHWITZ. Yes, you——

Dr. SIDEL. But also, as you leave, Senator Boschwitz, I must point out that I work in the Bronx, and when you work in the Bronx, Senator, you can be excused a little bit of passion about the needs of the people that I serve.

Senator BOSCHWITZ. All right. We will accept that.

Senator HARKIN. That is good. [Laughter.]

All right. Thank you, Dr. Sidel.

[The prepared statement of Dr. Sidel appears at the conclusion of the hearing.]

Senator HARKIN. And this is Dr. Kotch, Dr. Jonathan Kotch.

STATEMENT OF JONATHAN B. KOTCH, ASSOCIATE PROFESSOR, SCHOOL OF PUBLIC HEALTH, DEPARTMENT OF MATERNAL AND CHILD HEALTH, THE UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL, NC

Dr. KOTCH. That is right. Thank you, Mr. Chairman. I certainly appreciate the opportunity to be here, and I am going to submit a prepared statement for the record so I will try to emphasize three points that I mentioned in there.

COMPLIMENT THE COMMITTEE FOR PROTECTING THE WIC PROGRAM FROM THE DRACONIAN CUTS

First of all, I am a pediatrician by training and also a specialist in preventive medicine, but I do spend all of my time teaching and doing research in public health at this time. I would like to compliment the committee for protecting the WIC Program from the draconian cuts that have been experienced by other important health and nutrition programs in the last decade.

ONLY ONE-HALF OF THE ELIGIBLE WOMEN, INFANTS AND CHILDREN ARE BEING SERVED

Nevertheless, I need to emphasize the point that Dr. Sidel made that only one-half of the eligible women, infants and children are being served. The one figure which Dr. Sidel did not have in front of him is the fact that according to the 1987 participant and program characteristics study, there were 66 percent of infants less than 185 percent of poverty who were being served by the program. Now, one of the consequences of inadequate funding is that higher priority categories, namely pregnant women and infants with nutrition related risk conditions, are preferentially served.

REGULATIONS WHICH MAKE THE STANDARD OPERATING PROCEDURE ARE A RESPONSE TO RESOURCE LIMITATIONS THAT ARE CREATED BY THE ADMINISTRATION IN THE FIRST PLACE

The regulations which make the standard operating procedure are a response to resource limitations that are created by the administration in the first place, and then they use these resource limitations to justify these regulations. I need to emphasize and this is my first point, that such targeting strategies, while they respond to administrative priorities, are not generally good public health, and they do not necessarily serve the public interest.

THE FIRST PRINCIPLE OF PUBLIC HEALTH IS PREVENTION

I want to emphasize the point that the first principle of public health is prevention, and primary prevention requires that services be provided before the first sign of a problem. Personally I believe that the original intent of the WIC legislation was primary prevention, but in the interest of saving money in the short-run, the program as it now is administered rewards those who serve primarily people who already have problems, namely, people who have anemia, people who have short stature and other nutrition related conditions.

WE DO NOT KNOW THE SOCIAL COST OF NOT PUTTING EMPHASIS ON PRIMARY PREVENTION

We do not know the social cost of the missed opportunity to put the emphasis back, of not putting emphasis on primary prevention. I also want to emphasize the concern that I have with the priorities in some States not to serve older preschool children. I have to ask the committee what happens to the benefits enjoyed by WIC participants in their earliest years should WIC be arbitrarily cut off at the third or the fourth birthday, as it is in some States?

Would the cognitive gains which have been suggested by national studies, would the reductions in anemia, the improvements in nutritional intake persist in those years without food supplements? I would argue that they probably would not, and I want to emphasize, from the preschool child's point of view, the same point that Beverly Lowe made before about the importance of WIC delivering well-nourished kids to schools. WIC does not necessarily do that if, in fact, we are cutting off WIC benefits in the third or fourth year of life.

THE OBSERVATION THAT WIC PLAYS A CRUCIAL ROLE IN IMPROVING THE BIRTH OUTCOMES OF THIS COUNTRY

Now the same national studies which have showed increasing utilization of preventive health services among children on WIC also demonstrate higher rates of receipt of adequate prenatal care among pregnant women who are on WIC, and so my third point then is the observation that WIC plays a crucial role in improving the birth outcomes of this country, precisely because it attracts people into health care, and therefore, I must respectfully disagree with the assertion that appears in the written comments by Mr. Dunn from the Food and Nutrition Service that states that access to community services is a side benefit of WIC. It is not a side benefit of WIC. WIC is a three-legged program: access to health care, supplemental food, and nutrition education, and if you cut off one of those legs the program is going to come crashing down.

IMPORTANCE OF UNIVERSAL MATERNITY CARE FOR ALL PREGNANT WOMEN IN THIS COUNTRY

The importance of this policy of having WIC being an adjunct to health care, I think, emphasizes another interest and a final point of mine I want to make, which is the importance of universal maternity care for all pregnant women in this country. I would finally like to urge the committee to support not only full funding for WIC, including mandatory eligibility up to 185 percent of U.S. Poverty Income Guidelines, but also remind the committee of the continuing need for a nationally representative study of the effects of WIC on older children, which study has never been done. I would hope that full funding for WIC would include funding for such a study. Thank you very much for this opportunity to address you.

[The prepared statement of Dr. Kotch appears at the conclusion of the hearing.]

Senator **Harkin**. Dr. Sidel, I want you to know that I do not feel like I was lectured to. I appreciate people, especially of your stature and your professional standing, that have a passion about these things, that do not just look at units and figures and think of things only in dollars and cents, but see the human side of it.

Dr. **Sidel**. Thank you, sir.

Senator **Harkin**. I appreciate that kind of passion very much, and I think maybe if more of us had that kind of input from people of your standing and stature we might look at things a little differently around here.

Dr. **Sidel**. Thank you.

Senator **Harkin**. We tend to look at numbers all the time. That is what the budget deficit is all about is numbers. It is not about numbers. The budget deficit is about priorities. So when you talk about the cost of a B-2 bomber, and that for one-fourth of that we can fund this program, $150 million for 4 years, what you are talking about is priorities, and I think we ought to be talking about those priorities. So I appreciate your comments in that area.

Dr. **Sidel**. Thank you.

Senator **Harkin**. Now, as president of the American Public Health Association, you traveled around the country with the Physicians Task Force, tell me about the WIC Program in terms relative to other social programs and stuff, its importance, how it is perceived? It is hard to weigh different social programs. They all have a great need, but we are operating under limited budget constraints which have limited us. So I am trying to get an idea of how you rate the need for expanded funding of WIC relative to other social welfare needs.

Dr. **Sidel**. If we indeed had unlimited resources, if we could do what is needed in the United States, we would work for elimination of poverty. We would work for full education in the United States. The Soviet Union spends more of its gross national product on public funds for education than the United States spends on public funds for education as a percentage of its gross national product. It is shameful.

There is much to talk about national security. That is where our national security lies. But if we say we do not have the funding to really deal with issues of poverty and of education in the United States, then we may have to target certain kinds of social programs to meet special needs. The WIC Program is one of the most extraordinary programs that I know of in targeting a special problem and meeting it. We now have documented evidence that it does social good. It is a remarkable combination.

And if we cannot—forgive me, sir—I am getting on the soapbox again—but if we cannot as a society, for a program with this kind of documented ability to meet a specific important social need, if we cannot find the resources to serve everyone eligible for that program, what does national security mean in the United States?

Now one other issue with regard to where the money comes from. If you talk with people on the Appropriations Committee staff, they tell you that even though $150 million has been asked for that it is part of a function in the budget—I think I am using the term correctly—which does not seem to have additional funds added to it. So they say to us when we talk with them, where is the money going to come from for this $150 million if it has to come from within that same budget function.

And therefore, I have to respond to your question about the priority of WIC relative to other social programs that it is a false issue. Whether it is within the Appropriations Committee, the Agriculture Committee, on the Senate floor, someone, respectfully, is going to have to fight for getting that $150 million, plus more, not out of that function within the budget, but from functions which in my opinion could give it up quite easily.

Senator **Harkin**. What do we have to do to address the issue of breastfeeding?

Dr. **Sidel**. Again, you are going to get some superb testimony, sir, on that tomorrow. I surely am not an expert on breastfeeding, but increasing the rate is an extraordinarily difficult problem. It rests deeply within our social mores. It depends deeply on people's life chances and how they view the future and how they view the present. You will get a lot of that tomorrow, but increasing the rate requires much more than the slight pat on the back that it was given by the Food and Nutrition Service representatives this afternoon.

Senator **Harkin**. Well, I am sorry that I have to move along. I have one more witness, and I have to go over to the Appropriations

Committee, as a matter of fact. I said I would be there in a half an hour.

Dr. **SIDEL.** Thank you for the opportunity.

Senator **HARKIN.** Thank you both very much for coming. I appreciate your testimony. Last, we have Ellen Thompson of the National Association of State NET Program Coordinators, Nutrition Education and Training Programs, from Burlington, Vermont. Good to see you.

STATEMENT OF ELLEN B. THOMPSON, NATIONAL ASSOCIATION OF STATE NET PROGRAM COORDINATORS AND SOCIETY FOR NUTRITION EDUCATION, BURLINGTON, VT

Ms. **THOMPSON.** Good to see you.

Senator **HARKIN.** Have you been here before?

Ms. **THOMPSON.** No.

Senator **HARKIN.** I thought you looked familiar. I thought I had seen you. Well, welcome to the subcommittee.

Ms. **THOMPSON.** Thank you.

Senator **HARKIN.** We have your prepared testimony. It will be made a part of the record.

Ms. **THOMPSON.** All right. Well, I will just summarize a few things here.

Senator **HARKIN.** I wish you would.

SUPPORT FOR THE NET PROGRAM

Ms. **THOMPSON.** I am here today to ask for support for the NET program. You have already heard a lot about the importance of nutrition education in a lot of what has been said today.

PHYSICAL PROBLEMS

We are seeing increasing numbers of obese children. We are seeing more children who are physically unfit, who are demonstrating need for better health behaviors.

SURGEON GENERAL'S 1990 OBJECTIVES

In the Surgeon General's 1990 objectives for the Nation for health promotion, there are several objectives related to better health status and better health behaviors among children.

One of the objectives is something that you have brought up several times, and that is the need to get the School Lunch Programs to conform more to the Dietary Guidelines. As a public health nutritionist, I feel that the Dietary Guidelines do give us enough information to begin to make changes in the school meals programs without harming the children.

Senator **HARKIN.** Do you think that kids in the School Lunch Program get too much food thrown at them?

Ms. **THOMPSON.** Thrown at them?

Senator **HARKIN.** I mean put on their plates.

Ms. **THOMPSON.** I think for the littler children that happens quite often.

Senator **HARKIN.** Yes. I think so. When you get into junior high, I mean those kids burn up a lot of energy.

Ms. **Thompson**. Yes, it is hard to fill them up. But some of the littler ones——

Senator **Harkin**. But I have been in grade school, and gosh, they get so much food, and it is just thrown away.

Ms. **Thompson**. I think portion size would be an important thing to look at. The other thing is that many times a lot of sauces or gravies are used, and that also tends to fill the kids up. If lunch contained more bread or fruit and vegetables, it would be more appropriate.

In his report on nutrition, Surgeon General Koop called for more nutrition education for everybody starting in the primary grades.

NET IS THE ONLY PROGRAM THAT BRIDGES BETWEEN THE CLASSROOM AND THE SCHOOL LUNCH PROGRAM

NET is the only program that bridges between the classroom and the School Lunch Program. And I think it is important that NET continue to do that. We have promoted the Dietary Guidelines over the years. We have provided leadership in helping personnel in school food service to use commodities and to implement the Dietary Guidelines. I would like to also emphasize that NET provides service to all children, not just poor children.

NET DOES NEED SOME HELP

NET does need some help. NET is currently funded at $5 million which is 20 percent of what the original funding level was in 1978.

Senator **Harkin**. And that $5 million just started 2 years ago.

Ms. **Thompson**. In 1981 it dropped to $5 million. So we have been level funded since 1981.

Senator **Harkin**. At $5 million since 1981?

Ms. **Thompson**. Correct.

Senator **Harkin**. It seems like yesterday.

Ms. **Thompson**. Yes, but it has been a long time.

Senator **Harkin**. Yes. I thought it was just 2 or 3 years ago.

Ms. **Thompson**. No. We are now serving two-thirds fewer children and teachers than we served in 1981 when the program was reduced in funding and one-third fewer School Food Service workers.

Senator **Harkin**. What was it prior to 1981?

Ms. **Thompson**. I am sorry?

Senator **Harkin**. How much money was in it prior to 1981?

Ms. **Thompson**. $26 million.

Senator **Harkin**. $26 million, and it went to $5 million.

Ms. **Thompson**. It is now at $5 million. In 1981 it dropped part way and in 1982 it went to $5 million. And we have been level funded since, and you no doubt have observed that the cost of everything has been going up over that period of time. So we are using increasing proportions of the money for salaries and benefits and less and less for program operations.

Many of our materials have become outdated and in nutrition you can be out of date in 6 months. When you have not had the opportunity to upgrade curricula and purchase new materials for that long a time, the program really is beginning to hurt.

WE ARE ASKING FOR THREE THINGS THIS YEAR—FIRST IS MORE MONEY

We are asking for three things this year. The first one obviously is more money. We would like to see the program increase gradually until it gets back up to near the $26 million level. We have a lot of things we could do with that money. In Vermont, one of the things I would really like to do is to try to do more joint training for the school administrators, the school food service workers and the teachers, to try to make the school lunch more a part of the day and bring more parents into the system.

You talked earlier about how when the price goes up, the participation goes down. I think if we had more people involved in that process, and they understood what school lunch was, and it was more responsive to parents and to teachers and to students that, in fact, that might not happen.

Senator HARKIN. OK. That is one. You said you wanted three things. More money——

SECOND—WE WOULD LIKE TO SEE A BIENNIAL CONFERENCE FOR NET COORDINATORS

Ms. THOMPSON. More money. We would like to see a biennial conference for NET coordinators. This was done prior to the funding cuts. USDA used to sponsor a conference for NET coordinators. And that was very helpful. I belong to several other organizations, have participated in national WIC meetings in the past, and have worked with other groups. It is extremely helpful to get together with your colleagues to find out what they are doing. In the longrun it saves money because you do not have to keep reinventing the wheel in your own State.

THIRD—WE NEED MORE TECHNICAL ASSISTANCE FROM USDA

The third thing is that we really need more technical assistance from USDA. We need help with how we evaluate and monitor programs. We need help with different kinds of educational methods that would we could apply, and we need to come up with some kind of an ongoing monitoring program looking at the health status and the health behaviors of children in school. USDA and its contacts with CDC and other organizations could be very helpful.

I would like to thank you for inviting us here today.

Senator HARKIN. Well, thank you. We are going to get some more money.

Ms. THOMPSON. Thank you.

Senator HARKIN. We will get some more. I do not know how much. Fight and scrap for every bit we can get, but I think we are going to get some more money since I now find myself in the unique position of chairing the appropriations subcommittee. I had to fight for the extra money a couple of years ago, for the $5 million, only by threatening to take it away from a certain program. I will not get into that. But maybe we will not have to go through that this year.

The other two things I will look at. I am not all that aware. The biennial conference and things. Is that under the authorization, or was this just sort of something that was implemented by the Department of Agriculture?

Ms. **THOMPSON**. I think it was just one thing that was included by the Department at that time.

Senator **HARKIN**. We might put that in report language or something like that in doing our bill, and then technical help. I might be more in contact with you on that to get some more ideas from you on that.

Ms. **THOMPSON**. OK. In my region, there has been virtually no help with NET over the last several years because the people who were doing that were in the Nutrition and Technical Services Division, and that was eliminated several years ago at the regional level.

Senator **HARKIN**. How are NET funds most effectively employed? Just tell me that. What do you think is the most effective deployment?

Ms. **THOMPSON**. Well, I think the most effective use of any money is to target it to where your needs really are. And that it is most effective when you look at what is happening in the school, where are the problems and how can we solve it.

Senator **HARKIN**. OK.

Ms. **THOMPSON**. I do not think there is one answer to that question.

Senator **HARKIN**. OK. Thank you very much.

Ms. **THOMPSON**. Thank you.

[The prepared statement of Ms. Thompson appears at the conclusion of the hearing.]

Senator **HARKIN**. Now the subcommittee will stand adjourned until tomorrow at 2 o'clock when we will have a number of witnesses including someone from Iowa. I see Dennis back there. How are you? Good to see you. So we will stand adjourned until 2 o'clock tomorrow afternoon.

[Whereupon, at 5 p.m., the subcommittee recessed, to reconvene at 2 p.m., Thursday, June 15, 1989, in room SR-332.]

[Material submitted for inclusion in the record follows:]

APPENDIX

PREPARED STATEMENT OF G. SCOTT DUNN, ACTING ADMINISTRATOR, FOOD AND NUTRITION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC

Thank you for your invitation to testify before the committee today, Mr. Chairman. We are here to discuss the reauthorization of the Child Nutrition Programs.

We believe that the Child Nutrition Programs have been a success and deserve continued support. While we may differ on specific issues, we all agree that our Nation's children and the taxpayers as well, deserve the most nourishing and most cost-effective programs we can devise. I would like to briefly outline and discuss our recommendations for the Child Nutrition Programs.

The Bush administration's proposal for the National School Lunch Program, School Breakfast Program, the Child Care Food Program, the Summer Food Service Program and the Supplemental Food Programs is to support these programs at levels substantially higher than their 1989 funding levels. The Bush Budget would not reduce funding levels for the Child Nutrition Programs. Furthermore, the administration supports the continuation of all of the Child Nutrition meal subsidy programs, including the reauthorization of the Nutrition Education and Training Program (NET).

To be specific, the Child Nutrition Programs, including the National School Lunch Program, the Child Care and Summer Food Programs and associated administrative expense funds would be funded at $4.9 billion as compared to $4.6 billion in fiscal year 1989. This level of support would enable these programs to continue to fulfill their critical role.

Switching from the level of support for a moment, I would like to say a few words about the nutritional aspects of the National School Lunch Program. Recently, there has been considerable attention paid to the fat, sodium and sugar content of the food provided in these programs. I would like to assure the committee of our continuing and abiding concern in this area. The Department has reviewed and modified the guidelines, recipes, commodity specifications and other materials to see that the compliance with the U.S. Dietary Guidelines for Americans is as complete as possible. In recent years, USDA has also provided assistance to State and local cooperating agencies to comply with the Dietary Guidelines as they relate to the intake of sugar, fat and sodium. For example, the Department this past year issued revised recipe cards for school lunch managers in 90,000 schools that incorporate reductions, where practical, in the levels of sugar, fat and salt.

The Department has a good record of promoting practices in the School Lunch Program that are consistent with the Dietary Guidelines. As you know, the Dietary Guidelines call for moderation rather than set quantitative limits since there is currently insufficient evidence and consensus within the scientific and medical communities to support strict quantitative limits, particularly for children. Certainly, this is an area where scientific knowledge is evolving, and the Department must be prepared to respond to changes in information on this issue. Our efforts to help State and local school lunch managers moderate intakes of sugar, fat and sodium in lunches served are ongoing. We are looking at ways to make further improvements such as examining the specifications for processed products, not only those purchased by the Department, but also specifications used by State and local cooperators in an effort to minimize sodium and fat. Often, more fat and sodium are added during processing than necessary or desirable. Not only has USDA provided State and local agencies with improved guidelines on meal preparation, we have made a concerted effort to moderate the salt, fat and sugar in USDA donated commodities over the past several years. For example, we have changed specifications on a number of canned products to reduce the sodium level to the minimum amount possible while assuring the palatability of the foods. We have set the specifications for ground beef to be an average of 22 percent fat content, which is much lower than standard ground beef. We have changed the specification for canned fruit products, and we buy fruits packed only in natural juice or light syrup. These are examples of changes we have implemented to improve the nutritional profile of foods served in school lunches, while retaining their taste appeal to ensure that children will find them acceptable.

We would like to identify additional opportunities to promote the need for moderation and to show State and local managers how to moderate the use of these items in their food preparation. The bottom line is: USDA should and does play a leadership role in promoting healthier eating practices.

We intend to continue our efforts to make both the meal pattern guidelines and the food that USDA provides contribute to overall healthy eating patterns for children. We will be working with other officials in Government, such as the Surgeon General, and listening to out side experts' opinions to make improvements wherever possible.

Next, I would like to discuss a subject that has been of concern to this committee and has received considerable attention by all groups interested in Child Nutrition issues, namely Federal review—our effort to independently verify school and School Food Authority (SFA) claiming practices. Let me try to explain what it is and what it is not; to dispel, if possible, some of the "myths" surrounding the system.

The Department has overall responsibility to ensure the integrity of the National School Lunch Program. Federal review is a temporary project to assess and improve the accuracy of school lunch claims. We have carefully designed Federal review to complement, *not duplicate*, the ongoing State review systems under National School Lunch Program regulations. Therefore, schools subject to review under the AIMS are *not* subject to Federal review in that year.

AIMS (which stands for Assessment, Improvement and Monitoring System) was created in 1980 to improve the overall management of the National School Lunch Program. AIMS regulations require that State agencies review all SFA's over a 4-year period. There are performance standards that schools must meet in approving applications for free and reduced-price meals, establishing free and reduced-price meal claims, counting meals and in meeting the school lunch meal patterns. Even with AIMS requirements in place, the Department continues to be aware, through Office of Inspector General reports and onsite reviews by FNS personnel, of substantial discrepancies in claims for meals and the number of meals actually served. These reports were not statistically representative of all school districts nor do we wish by implication to impugn the efforts of schools as a whole. However, the magnitude of the problems found, and the large discrepancy between the claims for meals and the actual numbers of students enrolled, led us to believe that accountability needs to be improved. We expect to determine more precisely the nature of the problem and to identify solutions through our Federal review effort.

There is also some misunderstanding about "AccuClaim." This is not a separate new accountability system but rather a term used for the package of revisions to the NSLP regulations and AIMS performance standards. AccuClaim regulations will require States to focus their AIMS' review efforts on schools most likely to have problems, tighten the standards for claiming meals for reimbursement from the Federal Government, and require that claims' action be taken if invalid reimbursement requests are uncovered. These rules will be effective for the upcoming school year starting July 1, 1989.

Federal review is an effort to verify school lunch claims independent of AIMS. The underlying premise of Federal review is not to duplicate State efforts but to complement them, given that the Department has overall responsibility to ensure the integrity of the National School Lunch Program. We are very sensitive to State concerns that the reviews *do not* duplicate State work. Therefore, schools subject to review under AIMS are *not* subject to Federal Review in that year.

As you know, Federal review efforts began in March 1989, and all of the 203 reviews planned will be completed this week. As of May 1, 1989, 134 reviews were completed. Our preliminary results show that there is a basis for our concerns about accuracy of school lunch claims.

The reviews examined four areas of meal accountability: applications and verification, meal counting and claiming, claims consolidation and meal components. All SFA's were selected based on a random sample. Significant problems were discovered in several of the reviews, most notably in a number of large school districts. Some of the findings include:

- Several SFA's had many schools claiming more free meals than the number of eligible students enrolled.

- In three urban districts, 50 schools claimed more free meals than the number of eligible children. The amount of the claim in these three districts may exceed $1 million.
- Schools have not always consolidated claims properly. In one large Western SFA, an error was uncovered during a Federal Review that prevented an overpayment of $250,000.

These findings are troublesome by themselves. However, we are even more concerned because we were not able to review districts to the extent needed. In order to review a nationally representative sample of School Lunch Programs, we were not able to review problem districts indepth. Had we done so, more serious problems would have been discovered. For example, had we examined schools where free meals claimed exceeded the number of eligible children that would reasonably be in attendance, the number of schools reviewed would have increased significantly. In one district, in which our review was limited to 8 schools claiming meals in excess of eligible children, another 66 schools claimed meals for over 98 percent of the children eligible for free meals. On average, States indicate that about 83 percent of children eligible for free meals receive them on a typical day.

I would like to point out, however, that not all reviews uncovered problems. In fact, many exemplary operations were reviewed. This reinforces our belief that the regulations governing school lunch accountability are appropriate and achievable, and that we should focus our review efforts on those schools and school districts where there are most likely to be problems.

In addition to the reviews, there is a training component for States and local school food service managers. The plans were coordinated and developed in close consultation with representatives of the school food service industry. It is vital that we take advantage of their insight into the best methods for providing training and technical assistance concerning accountability.

The training plan consists of five major parts:

- Accountability Guidance,
- State Training,
- Outreach to Cooperating Officials,
- SFA Training, and
- Technical Assistance Materials.

The accountability guidance will consist of model systems that schools can adopt and will be accompanied by manuals and videotapes for distribution to State and local agencies. State training sessions will be held so that State officials know how Federal reviews are to be done; currently 57 sessions have been scheduled. Outreach to local officials will be done in a variety of forums, using slide presentations and videotape materials. Many other training aids, including handbooks, pamphlets, AIMS guidance, etc., will be used in providing SFA training and technical assistance materials. In short, we are undertaking a full-scale effort to get out the message on the need for accuracy in school lunch claims.

The relatively small amount of money devoted to Federal review has a potentially great payback in reducing overclaims for school lunches and in maintaining confidence that dollars spent by the taxpayer on school lunches are well-spent. In short, a quality program means both a nutritionally sound program that appeals to our children, and a program that is accountable so that it appeals to the taxpayers.

Before leaving the discussion of the National School Lunch Program, I would like to comment on commodity support for the program and in particular correct the record about the level of bonus commodity donations. As you know, we plan to provide the full amount of entitlement commodities provided for in the law, including increases for inflation. Over the past several years, there have been substantial amounts of bonus foods donated to schools, especially dairy items, with millions of pounds being provided. This was because there were very high Government purchases of dairy products under the dairy price support program. During the current school year, the level of donation of bonus commodities has declined because previous record donations and revisions in the dairy price support program which have brought supply into better balance with demand have depleted what was once a very large inventory level. This year schools have received somewhat less bonus foods than we originally estimated to be available, but the drop in quantity is far less than some critics have charged. Bonus commodity distributions decreased $52 million (or 12 percent) in school year 1988, about one-quarter of what has been alleged. Most of the change was due to lower bonus distributions of beef acquired during the whole-herd buyout required by the Food Security Act of 1985. As you know, the Department was required to make a one-time $400 million purchase of beef, pork, and lamb, and half was distributed through domestic channels. Schools received $65 million in beef in 187 and $20 million in 1988. Accounting for the difference, bonus distributions decreased by about $7 million in school year 1988.

It should be noted, however, that distributions in fiscal year 1988 were not much below the average of $360 million since 1981, the first year when bonus commodity levels to schools increased dramatically.

In regard to bonus food for next year, it appears that butter, cornmeal, and flour will be available on the same bonus basis as last year. However, honey will only be available as a limited bonus, and cheese and nonfat dry milk will not be available as bonus items. Current estimates show acquisitions under the dairy price support program have been at levels which would not warrant a bonus designation for cheese or nonfat milk. Quantities should be sufficient, however, for States to order cheese against the 12.25 cents per meal we currently provide in commodity support. As the market is volatile, we will monitor it closely to determine if cheese or nonfat milk might be available as bonus items later in the year. The next major programs I would like to discuss are the Supplemental Food Program for Women, Infants and Children (WIC) and the Commodity Supplemental Food Program (CSFP). The FY 1990 administration budget requests would more than support continuation of these programs and increases in funding to offset inflation. This is partly due to additional funds being available from the funds generated through cost containment programs initiated by States in the WIC Program.

During fiscal year 1990 States will save more than $300 million by reducing the price of infant formula sold to WIC infants. These funds should support increases in WIC participation of approximately 700,000.

With regard to participation levels in WIC, it should be noted that WIC has experienced a major growth spurt, in part attributable to these cost containment efforts, and in part due to steadily increasing appropriations. For example, from fiscal years 1985 to 1988 the WIC Program experienced a 20 percent increase in appropriation levels. Since 1980, WIC participation has doubled to over 3.9 million participants. With regard to coverage, WIC is doing a good job of reaching the most needy persons. Over 30 percent of all infants in the United States receive WIC benefits. Certain States are reaching virtually all of their potential eligibles. In some instances, infant formula savings have been so large and rapid that some States are having trouble utilizing all their savings and are carrying unspent funds into succeeding fiscal years.

As WIC funds become more available, and the program begins to reach more of its eligible population, current program design and further uncontrolled growth could result in a number of undesirable effects for the program.

WIC saturation will have a negative effect on nutritional risk eligibility criteria, which is essentially State-developed based on broad Federal parameters. The current level of flexibility enjoyed by States has historically permitted them to direct limited resources consistent with their own health department philosophies and priorities. What seemingly is appropriate in lean times may not continue to be good public policy as WIC becomes more saturated. As WIC has grown, we have witnessed a widening diversity among States in the types of criteria used to determine who is at nutritional risk. And, we have seen a trend among States to relax their criteria. Nutritional risk is an absolute condition; for example, the blood values that determine anemia should not change based on economic conditions. Within the limits of income eligibility, States seemingly have an almost limitless capacity to expand the universe of WIC eligibles and to vary the demand for WIC funds through the design of their nutritional risk criteria.

At some future point, it may be essential to create national criteria to determine who is and who is not at nutritional risk for WIC purposes.

Short of this, we have initiated some actions to contain the trend toward relaxation of nutritional risk criteria. Since the committee expressed particular interest in the problem of uniformity of risk criteria among States, we will provide additional information at this time on the more immediate actions we are taking.

In 1984, we began our efforts to better align States' criteria and have sought nonregulatory solutions to move States voluntarily toward uniformity and more reasonable criteria. At this time, we are conducting a review to determine the extent and trend of State movement. States, on their own initiative, have begun to document the criteria they use in the scientific literature. This process has served a useful purpose, but we have not been fully satisfied that it alone is enough to satisfy the need for more uniformity or more effective criteria. To assist States further, in April 1989, we issued guidance that States must now use to "test" the appropriateness of their criteria. These tests will also be used by the Department to approve States' 1990 criteria as presented in 1990 State plans. The tests, when properly applied, should assure that a person is eligible for WIC only when WIC's benefits would be of use to this person—that is, when a person's condition could be improved or directly prevented by the food package and/or the nutrition education available through the WIC Program. Use of the program as a lure to other community services should be a *side* benefit of the program, not a *primary* benefit. Proper application of these tests will remove most inappropriate criteria, and will contribute to generally improved uniformity. But we will still be faced with a need to decide whether national uniformity should be apart of the WIC Program.

As WIC becomes fully saturated, we have a second concern. Increased WIC funding will greatly diminish any incentive to undertake cost containment initiatives. Much of today's highly touted cost containment ideas were borne of a necessity to do more with less. In light of increasing funding levels, it will become a major challenge to instill in States a continuing sense of a need to operate economically. While there might not be initiatives of the magnitude of savings of the rebate programs, there is still much more that can be done. Aside from price reductions and other food package items, there are at least two major lucrative areas where WIC can achieve cost efficiencies: they are better vendor management and increased breastfeeding rates.

I would like to spell out briefly what we at the Federal ~~level have done~~ in the areas of vendor management and increased breastfeeding rates, since the committee has indicated an interest in these areas.

On vendor management:

We are proposing new regulations to strengthen and improve vendor management. Some of the proposed changes include requiring States to be more selective during the vendor authorization process, requiring annual mandatory training of all vendors, establishing uniform criteria for identification of high-risk vendors, and requiring compliance investigations of authorized vendors, starting with those identified as high risk.

In addition, the Department is redesigning its major report for tracking the status of State agency vendor management. The report will allow the Department to identify and share successful methods to identify problem vendors.

We are also undertaking a demonstration project in Illinois which will require vendors to compete for WIC authorization on the basis of food prices. Winning vendors will have exclusive rights to do WIC business in the State.

In December 1988, we issued an FNS instruction calling for the sharing of data on vendors authorized in both the WIC and food stamp programs. This instruction will facilitate increased efforts to identify and disqualify abusive vendors. A vendor losing its WIC Program could also lose its Food Stamp Program.

Now, about USDA effort to promote breastfeeding: The best way to feed infants, which also coincidently leads to considerable cost savings, is through increased breastfeeding rates. Promoting breastfeeding among the WIC population is a critical required component of nutrition education offered to WIC women. Although we do not collect specific data on the rates of breastfeeding among the WIC population, we do know that, like the low-income population at large, the rates are lower than in the general population. Increasing rates among WIC participants continues to be a challenge, and we continue to strive to improve in this area. We have a number of strategies underway, falling into the following categories: regulatory incentives, education and resources, coordination and research.

Regulatory incentives are numerous. Some key provisions include placing breastfeeding women in the highest priority level to be served, providing breastfeeding women with a greater variety and quantity of foods than nonbreastfeeding women, and extending benefits to 1 year post partum. Nonbreastfeeding post partum women can receive WIC benefits for only 6 months post partum. We also allow States to count breast-fed infants as program participants for purposes of administrative funding.

In the area of education and resources, we have developed several popular publications to promote and teach breastfeeding, primarily for use by the professional health community. We have also helped finance, in cooperation with the Department of Health and Human Services, several regional training workshops for health professionals. In the area of communications, we are active members of the Healthy Mothers, Healthy Babies Coalition and have coordinated with numerous other major national organizations and Federal agencies such as the Department of Health and Human Services to promote breastfeeding. And finally, we have provided a number of grants and have conducted demonstration projects to learn how best to promote breastfeeding among WIC's recipients. We anxiously await the final results of the current demonstration projects, which will be available in 1990. I have a factsheet detailing USDA's efforts for anyone interested in further information.

In summary, we anticipate a need to look deeper into the effects of quickly accelerating program growth. Although it will result in more people receiving benefits, we want to make sure WIC continues to operate as effectively and efficiently as possible. In this manner, WIC will continue to fulfill its legislative goal of serving those who are at nutritional risk during critical times of growth and development.

Mr. Chairman, that concludes my testimony. I would be happy to answer any questions you may have.

[A factsheet supplied by Mr. Dunn entitled, "Efforts to Promote Breastfeeding in the Supplemental Food Programs" and other material supplied for the record follow:]

Efforts to Promote Breastfeeding in the Supplemental Food Programs

The supplemental food programs for women, infants, and children are federally sponsored programs that provide specific nutritious foods to supplement the diets of pregnant, breastfeeding, and postpartum women and infants and children. Participants are also taught the relationship between proper nutrition and good health. These programs are administered at the national level by the U.S. Department of Agriculture (USDA). They include the Special Supplemental Food Program for Women, Infants, and Children (WIC) and the Commodity Supplemental Food Program (CSFP).

Eligibility criteria for WIC require that participants have both a low income and be determined by health officials to have nutritional problems such as anemia or abnormal growth patterns. Low income is also a requirement for CSFP, and some State and local CSF programs use nutritional risk as a criterion as well. WIC serves children up to 5 years of age. CSFP serves children up to 6 years of age, as well as elderly persons 60 years of age and older.

Breastfeeding Promotion

Nutritional and medical research has shown that there is no better food than breast milk for a baby's first year of life. Since one of the goals of the supplemental food programs is to improve the nutritional status of infants, WIC and CSFP encourage mothers to breastfeed their babies.

Federal requirements for WIC and CSFP include various provisions to encourage participating women to breastfeed. For instance:

- Both WIC and CSFP offer a greater variety and quantity of food to breastfeeding participants than to nonbreastfeeding, postpartum participants.
- In both WIC and CSFP, breastfeeding women are always considered to be at a higher level of nutritional risk than nonbreastfeeding, postpartum women. A nutritional risk priority system is used to determine position on the waiting list when a local agency has reached maximum caseload, and those persons in the highest priorities are served first.
- Both WIC and CSFP must include information on the benefits of breastfeeding in their nutrition education sessions.
- In WIC, breastfeeding women may receive benefits for up to 1 year while nonbreastfeeding women are eligible for only 6 months postpartum. In CSFP, both breastfeeding and nonbreastfeeding women are eligible for benefits up to 1 year postpartum.
- In WIC, funding initiatives can be made available to those States serving large proportions of high-risk persons, which include breastfeeding women and their breastfed infants.

United States
Department of
Agriculture

**Food and
Nutrition
Service**

Revised April 1989
FNS-236

- In WIC, a breastfeeding woman with no nutritional risk of her own may receive benefits based on the eligibility of her at-risk breastfed infant.

In addition to these provisions, USDA has developed several publications to help local agency staff teach WIC and CSFP participants about breastfeeding.

- How WIC Helps: Eating for You and Your Baby (PA-1198) provides guidance on the quantities and types of nutritious foods required in the daily diets of pregnant and breastfeeding women. This publication is also available in Spanish (PA-1198S). WIC and CSFP administrators can obtain single and multiple copies from the Supplemental Food Programs Division, Food and Nutrition Service, USDA, 3101 Park Center Drive, Alexandria, VA 22302.

- Promoting Breastfeeding: A Guide for Health Professionals Working in the WIC and CSF Programs (FNS 247) contains a variety of ideas and successful approaches to help health providers be more effective in their efforts to promote breastfeeding among low-income women. The guide is divided into four major sections: background information; implementing the promotion effort; sample lesson plans; and references and resources for health professionals. Single copies are available for WIC and CSFP administrators from the Nutrition and Technical Services Division, Food and Nutrition Service, USDA, 3101 Park Center Drive, Alexandria, VA 22302.

- Promoting Breastfeeding in WIC: A Compendium of Practical Approaches (FNS 256) discusses the findings of the WIC Breastfeeding Promotion Study and Demonstration carried out during fiscal years 1986-89. It contains a variety of ideas for breastfeeding promotion, a cross-site analysis of issues relating to the promotion of breastfeeding in WIC, and case study reports on eight exemplary sites—six WIC and two non-WIC sites. Single copies are available for WIC and CSFP administrators from the Nutrition and Technical Services Division, Food and Nutrition Service, USDA, 3101 Park Center Drive, Alexandria, VA 22302.

- The Nutrition Education Resource Guide: An Annotated Bibliography of Education Materials for the WIC and CSF Programs includes references to educational materials on breastfeeding developed by a variety of sources. Single copies are available free of charge to WIC and CSFP administrators from the Food and Nutrition Information Center (FNIC), National Agricultural Library, Beltsville, MD 20705, while the limited supply lasts, and on loan thereafter.

Other Breastfeeding Education Resources

An extensive stock of breastfeeding education materials is available for loan from the Department's Food and Nutrition information Center (FNIC). FNIC serves as a national depository for both printed and audiovisual nutrition educational materials, and many of these are applicable for use with WIC and CSFP participants. The center collects materials developed by both public and private agencies and organizations and makes them available (in limited quantities) for loan to WIC and CSFP personnel. To borrow materials, send written requests to FNIC.

At FNIC, lending and reference assistance is available to congressional staffs, Federal and State government agencies, libraries, information centers, universities, colleges, Cooperative Extension research institutions (Federal, State, and county levels), and professional societies. FNIC offers access to its computer search services to help provide answers to nutrition and breastfeeding questions.

Cooperative Efforts

USDA participates in several joint efforts to improve the health of mothers and children. Some of those initiatives have included:

- Participation in the national Healthy Mothers, Healthy Babies campaign for public education to improve maternal and infant health. The campaign is sponsored by a coalition of more than 80 voluntary, professional, and government agencies, including USDA. Materials produced and distributed by the coalition include a resource package on breastfeeding for health professionals to encourage them to promote breastfeeding with their clients.

- Cosponsorship with the Department of Health and Human Services (DHHS) in April 1982 of a satellite video-teleconference that addressed maternal and infant nutrition. A major segment of this conference was devoted to breastfeeding. The purpose of the teleconference was to increase nutrition and health professionals' knowledge and understanding of new research findings in nutrition as they relate to maternal and infant health. The audience, through the program's interactive segments, was able to communicate directly with well-known experts in this field.

- Participation with DHHS in a Joint Nutrition Education Advisory Committee for Maternal and Child Nutrition Publications. The committee focused its efforts on breastfeeding promotion and education in fiscal year 1983 and initiated the idea for the breastfeeding resource package developed and distributed by the Healthy Mothers, Healthy Babies Coalition.

- In fiscal years 1989-90 the focus of a joint USDA and DHHS, Office of Maternal and Child Health (OMCH), effort is in the area of continuing education in lactation management. WIC personnel are invited to participate in 10 regional conferences supported by OMCH through a training grant to the University of California-San Diego; USDA is providing funding for several additional conferences through an interagency agreement with the OMCH.

Breastfeeding Education Grants

In 1979, USDA awarded three grants to fund projects on breastfeeding:

- Baylor College of Medicine in Houston, Texas, was awarded a grant to develop and evaluate breastfeeding education curricula, training manuals, and teaching methods and materials for use in WIC and CSFP. The grant also funded research in the area of lactation failure.

- The Papago Nutrition Improvement Program in Sells, Arizona, was awarded a grant to develop a breastfeeding education network with six other health agencies on a reservation. The local Indian health agency developed a tested training protocol for field workers and staff, a team approach model for coordinating services among numerous agencies, and a model to show ways of increasing breastfeeding on other Indian reservations.

- The Windham Community Action Program in Windham, Connecticut, was granted funds to identify and understand psychological and cultural barriers to breastfeeding. The project also used grant money to develop and test the effectiveness of different strategies for overcoming resistance to breastfeeding.

Results from these projects have been useful in identifying barriers to breastfeeding and in developing or improving breastfeeding education programs in local agencies. Copies of the grantees' final reports and materials may be borrowed for review from FNIC.

In 1986, FNS contracted for a WIC Breastfeeding Promotion Study and Demonstration to identify, evaluate, and demonstrate approaches to effectively promote breastfeeding in WIC. In the early phases of the 3-year study, information on breastfeeding promotion was collected from exemplary WIC sites. Those findings were compiled into a compendium of practical approaches and distributed to all WIC State agencies for use by nutrition educators. In the final phase, which began in October 1988, seven WIC sites were awarded grants to develop and test breastfeeding promotion approaches using the following elements:

- A prenatal component that addresses participants' concerns and lack of knowledge about breastfeeding and incorporates positive peer influence.

- A postpartum component that provides early support and followup.

- A special group to coordinate breastfeeding promotion and support activities for participants in the prenatal and postpartum periods, including in-hospital.

The results of the WIC site demonstrations will be reported in 1990.

These are equal opportunity programs open to all eligible persons regardless of race, color, national origin, age, sex, or handicap. If you believe you have been discriminated against for these reasons, write immediately to the Secretary of Agriculture, Washington, DC 20250.

Declining Prevalence of Anemia Among Low-Income Children in the United States

Ray Yip, MD, MPH; Nancy J. Binkin, MD, MPH;
Lee Fleshood, PhD, MPA; Frederick L. Trowbridge, MD, MSC

To determine the anemia trends among low-income US children, hematologic measurements obtained from children aged 6 to 60 months who were enrolled in public health programs in six states that were consistently monitored by the Centers for Disease Control Pediatric Nutrition Surveillance System were studied. Overall, the prevalence of anemia has declined steadily from 7.8% in 1975 to 2.9% in 1985. The prevalence of anemia declined significantly among children seen at preenrollment screening visits, as well as those seen at follow-up visits, suggesting a generalized improvement in childhood iron nutritional status in the United States, as well as a positive impact of public health programs. To ensure that the declining trend of anemia was not a function of a change in the population of children enrolled in the surveillance system, Tennessee nutrition surveillance records were further analyzed; these records were linked with birth records to obtain detailed socioeconomic status (SES) information. Even though the SES composition remained stable from 1975 to 1984, the prevalence of anemia has declined significantly within each SES group. These findings indicate a true decline in the prevalence of anemia among low-income children that is likely the result of improvements in childhood iron nutrition.

(*JAMA* 1987;258:1619-1622)

TWO RECENT studies have documented a decline in the prevalence of anemia among infants and preschool children enrolled in two different public health clinics.[1,2] The authors of both studies suggested that the Special Supplemental Food Program for Women, Infants, and Children (WIC) was the main reason for the observed decline in the prevalence of anemia among these two low-income clinic populations. Data collected by the Centers for Disease Control (CDC) Pediatric Nutrition Surveillance System (PNSS), between 1974 and 1985, on low-income children who participated in the public nutrition and health programs from multiple states also have demonstrated a continued decline in the prevalence of anemia among infants and preschoolers.[3-7] However, this nutrition surveillance system has expanded from the initial five states at its inception in 1974 to 35 states in 1985, and changes in the number of states and composition of participating clinics may have affected the observed trend.

For editorial comment see p 1645.

To determine the magnitude and extent of the decline in the prevalence of anemia, we examined hematologic data from the six states that consistently participated in the CDC PNSS from 1975 to 1985. To ensure that changes in the prevalence of anemia were not a function of secular changes in socioeconomic status (SES) among participants enrolled in public nutrition and health programs, we used linked birth and nutrition records to study trends among children enrolled in the Tennessee WIC program while we controlled for the family SES of these children.

SUBJECTS AND METHODS

Data Sources

CDC PNSS (1975 to 1985).—The CDC PNSS assists multiple states in collecting pediatric growth and hematologic data from low-income children enrolled in various public health programs, including WIC; the Early Periodic Screening, Diagnosis, and Treatment program; Head Start; and maternal and child health clinics.[4-6] For this analysis, nutrition surveillance data collected from Arizona, Kentucky, Louisiana, Montana, Oregon, and Tennessee, from 1975 to 1985, were used. These six states were among the first to join the system and have been consistent participants. With the exception of Louisiana, where most of the reported data was from the Early Periodic Screening, Diagnosis, and Treatment program, most data from other states were from WIC programs. Because WIC enrollment is limited to children younger than 5 years of age, we limited the anemia trend analysis to children

---

From the Division of Nutrition, Center for Health Promotion and Education, Centers for Disease Control, Public Health Service, US Department of Health and Human Services, Atlanta (Drs Yip, Binkin, and Trowbridge), and the Nutrition and Supplemental Food Programs, Tennessee Department of Health and Environment, Nashville (Dr Fleshood).

Reprint requests to Division of Nutrition, Bldg 3, SS-45, Centers for Disease Control, Atlanta, GA 30333 (Dr Yip).

between the ages of 6 and 60 months.

A total of 1 680 740 hemoglobin (Hgb) or hematocrit (Hct) measurements were collected from 499 759 children. Hence, most children had serial measurements obtained at different ages. Overall, 83% of the measurements used were Hct, and 17% were Hgb. For 10.4% of visits, both Hgb and Hct measurements were reported, but in this situation, only the Hct values were used. Essentially, all Hct measurements were based on the standard microhematocrit centrifuge method. The Hgb measurements were performed in the earlier years of the study and used a variety of outpatient laboratory methods. At the end of the study period, virtually all clinics were using only Hct measurements.

Tennessee-Linked Pediatric WIC and Birth Records.—Detailed analyses of anemia trends for the Tennessee pediatric WIC participants were performed with the use of WIC records from the CDC PNSS linked to birth certificate records from 1975 to 1984. This linked data file contained sociodemographic data, including parental age, education, and marital status from the birth records. The data linkage was performed by matching the last name, first initial, and date of birth from WIC records with birth records. Overall, 87% of the WIC records were successfully linked to birth records. Approximately 0.8% of the matched WIC records had more than one birth record match and were eliminated from the analysis. Based on reported race and birth weight on WIC records, the unmatched WIC records had comparable race composition and birth-weight distribution to those matched with birth records. A total of 326 266 WIC records of children aged 6 to 60 months were linked to 74 864 individual birth records during the ten-year study period.

Definition of Anemia

For the anemia trend analysis of both the six-state CDC PNSS data and the Tennessee-linked WIC-birth data, we used age-specific Hgb and Hct cutoff values to define anemia. The Hgb cutoff value was 103 g/L (10.3 g/dL) for children aged 6 to 23 months and 106 g/L (10.6 g/dL) for children aged 24 to 60 months. The Hct cutoff values were 0.31 (31%) for children aged 6 to 23 months and 0.32 (32%) for children aged 24 to 60 months. These age-specific cutoff values are 6 g/L (0.6 g/dL) lower for Hgb or 0.02 (2%) lower for Hct than the commonly used anemia cutoff values recommended by the American Academy of Pediatrics.[6] Lower cutoff values were chosen, in part, to select only the definite cases of anemia for trend analysis and, in part, to avoid the inclusion of children with hematologic values near the common cutoff values used by the WIC program for certification purposes (eg, Hct, <0.34 [<34%]). This decision was based on the observation of an overreporting of Hct values just below the WIC program cutoff values. However, analysis of Hgb and Hct distributions indicated that hematologic values not adjacent to the WIC program cutoff values were not affected (R.Y., unpublished data, October 1986).

Anemia Trend Analysis

CDC PNSS (1975 to 1985).—Annual prevalences of anemia by year of visit, as well as by birth year cohort, were calculated for children seen at preenrollment screening visits, follow-up visits, and both types of visits combined. Additionally, the annual anemia prevalences were determined by six-month age groupings and by race. All age-specific anemia trends compared in this study were based on birth-year cohort to maximize comparability. Each data point in the trend analysis for preenrollment visits and for the various age groups represents a true prevalence estimate because each child is represented only once in each time period and age interval. For the race-specific anemia trend, Hispanic children were grouped with white children because most of the states did not distinguish Hispanic from non-Hispanic white children in race reporting.

Tennessee-Linked Pediatric WIC and Birth Records.—Anemia trends, from 1975 to 1984, were determined for children from different SES groups enrolled in the Tennessee WIC program. Family SES for these children was based on three sociodemographic risk factors from the birth records: (1) mother's age of 17 years or younger at child's birth; (2) mother's education less than the 12th grade; and (3) mother unmarried. We defined low SES as those whose families had two or three risk factors, intermediate SES as those whose families had only one of the risk factors, and higher SES as those whose families had none of the risk factors. We further divided the higher SES group into two subgroups based on whether or not at least one of the parents had more than a high school education. This procedure of defining SES background resulted in four SES groups that ranged from high SES (group 1) to low SES (group 4).

Anemia trends by birth-year cohort were analyzed based on preenrollment screening records and on all visit records for the total group, as well as for each of the four SES groups. The relative proportions of children in each SES group during the study period were compared to determine any significant changes in SES composition of the WIC population. In addition, an adjusted prevalence of anemia for each birth-year cohort was determined after controlling for age, SES, and type of visit (initial vs follow-up) for each birth-year cohort, and a first-order linear regression model was fitted over the adjusted trend.

Statistical Analysis

The significance of trend for all age-specific anemia trends, as well as trends based on initial visits, were based on angular χ^2 tests, which assess the differences among proportions (prevalence of anemia), as well as the direction of change among proportions (increase or decrease).[9] For those trends that may have contained more than one measurement per child, a first-order derivative linear regression model was used to fit the slope of anemia prevalence over the study years. The R^2 values were used to assess the fit and significance of the trend of the linear model.[10]

RESULTS

Anemia Prevalence in CDC PNSS (1975 to 1985)

General Characteristics of Study Population.—Among the 499 759 children 6 to 60 months of age who were seen at public health clinics from the six selected states, a total of 294 955 Hgb and 1 385 785 Hct measurements were used for the anemia trend analysis. Each state contributed the following percentages of the total measurements: Arizona, 18.2%; Kentucky, 29.4%; Louisiana, 8.8%; Montana, 4.8%; Oregon, 11.3%; and Tennessee, 32.4%. The general characteristics of the children are summarized in the Table. The racial distributions remained relatively stable during the study years; for example, the proportion of black children was 21.0% from 1975 to 1977 and 19.2% from 1983 to 1985. The age distribution shifted to a slightly younger composition during the study period; the proportion of children 6 to 23 months of age increased from 47.4% from 1975 to 1977 to 55.8% from 1983 to 1985. During the study period, the proportion of measurements obtained from initial or preenrollment screening visits declined from 31.4% during the period from 1975 to 1977 to 23.0% during the period from 1983 to 1985.

Anemia Trends.—The overall prevalence of anemia based on all hematologic measurements by year of visit declined from 7.8% in 1975 to 2.9% in 1985. A

General Characteristics of Children in CDC Pediatric Nutrition Surveillance System (1975 to 1985)*

Major Characteristics	%
Type of public health program	
WIC	82.3
EPSDT	9.9
Other	7.8
Race	
White and Hispanic	71.8
Black	20.0
American Indian	7.5
Asian	0.7
Age range, mo	
6-11	21.8
12-23	30.2
24-35	21.0
36-47	16.1
48-60	10.9

*Data collected from the six selected states participating consistently in the system. CDC indicates Centers for Disease Control; WIC, Women, Infants, and Children; and EPSDT, Early Periodic Screening, Diagnosis, and Treatment.

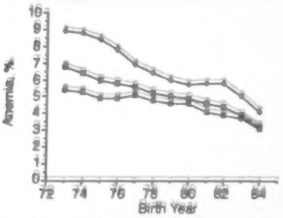


Fig 1.—Prevalence of anemia for each birth-year cohort, six selected states in Centers for Disease Control Pediatric Nutrition Surveillance System. Top line represents prevalence for children seen at initial visit only; bottom line, prevalence for children seen at follow-up visits; and middle line, all visits combined.

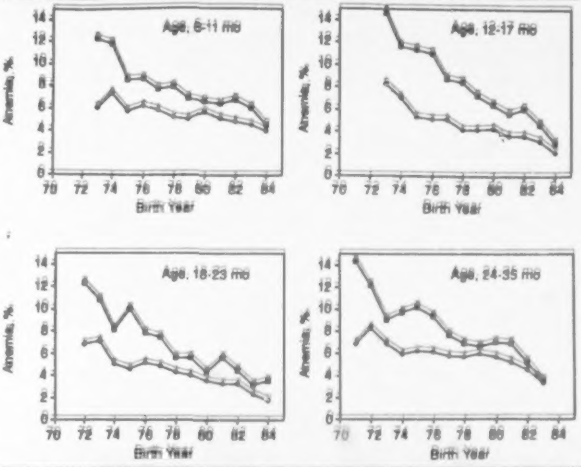


Fig 2.—Prevalence of anemia for children seen at initial (top lines) or preenrollment screening visits vs those seen at follow-up (bottom lines) visits for four specific age groups, six selected states in Centers for Disease Control Pediatric Nutrition Surveillance System. Prevalence of anemia at follow-up visits is consistently lower than those at initial visits for each age group ($P<.001$).

similar decline was noted in trends of the prevalence of anemia based on birth-year cohort, from 6.8% in the 1973 cohort to 3.1% in the 1984 cohort (Fig 1). In Fig 1, significant declines in anemia are demonstrated for the following types of visits: (1) children seen at the initial or preenrollment screening visit; (2) children seen at follow-up clinic visits after enrollment in the programs; and (3) children seen for all visits combined. In each case, the rate of anemia declined more than 50% during the study period ($P<.001$, based on R^2 of linear regression trends). There was little difference in the pattern of decline based on Hgb measurements compared with that based on Hct measurements. For the 10.4% of children who had both Hgb and Hct values measured, use of either Hgb or Hct to determine anemia resulted in similar prevalences of anemia.

The prevalence of anemia based on either the year of visit or birth-year cohort was consistently higher for those children seen at initial visits compared with those seen at follow-up visits. To ensure that the higher rate of anemia for children at initial visits was not a function of the younger ages of the initial visit group, age-specific anemia trends using birth-year cohorts were determined (Fig 2). Again, the prevalence of anemia declined significantly for all age groups ($P<.001$, angular χ^2 test).

Race-specific prevalences of anemia by birth-year cohort for white, black, and American Indian children, based on measurements from all visits, are shown in Fig 3. For all races, the prevalence of anemia declined significantly ($P<.001$, based on R^2 of linear regression trends). In the earlier years, black children had a higher prevalence of anemia, but the difference between black and white children narrowed as the rate of anemia declined. For each year, American Indian children in this study had a significantly lower rate of anemia than either black or white children ($P<.001$, χ^2 test). Most of those American Indian children came from the WIC program of Arizona.

Anemia Trends Based on Tennessee-Linked Pediatric WIC and Birth Records

General Characteristics of Study Population.—The Tennessee-linked data, from 1975 to 1984, contained a total of 319 114 Hct measurements from a total of 72 989 children aged 6 to 60 months. The overall racial composition was 76.6% white and 23.1% black; this composition changed little over the study period. Between 1975 and 1984, the relative proportion of children in each SES group did not change substantially. Twenty percent of children in 1975 and 22% in 1984 were in the lowest SES group (group 4), and 8% in 1975 and 9% in 1984 were in the highest (group 1). This evidence of stability in SES composition over time indicates that any decline in anemia is not related to a changing SES composition among WIC-enrolled children.

Anemia Trends.—From 1975 to 1984, the overall prevalence of anemia declined from 8.0% to 3.2%. For children seen at initial screening visits, the rate declined from 10.3% to 3.8%. The decline of age- and race-specific anemia rates was similar to the trend noted for the six-state CDC PNSS shown earlier.

The trends in anemia for the four SES groups based on birth year cohort are shown in Fig 4. The anemia rate for each SES group declined significantly ($P<.001$, angular χ^2 test), with children belonging to the lowest SES group (group 4) showing the greatest decline over the ten years. It is also important to note that there are significant differences in the prevalence of anemia among the four SES groups over the study period ($P<.001$, χ^2 test), and that the

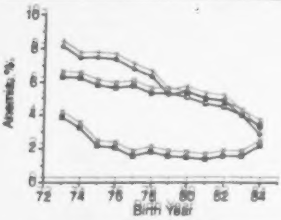


Fig 3.—Race-specific prevalence of anemia based on birth-year cohort, six selected states in Centers for Disease Control Pediatric Nutrition Surveillance System. Top line indicates black children; middle line, white children; and bottom line, American Indian children.

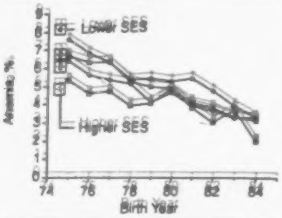


Fig 4.—Socioeconomic status (SES)–specific anemia trends of Tennessee children enrolled in Women, Infants, and Children program, from 1975 to 1984. All SES groups showed decline in prevalence of anemia even though lower SES groups had higher anemia prevalence in given year than higher SES groups. Numbers 1 through 4 in boxes indicate SES groups.

prevalence of anemia appears to be inversely associated with SES. In recent years, however, the differences in the prevalence of anemia among SES groups appears to have narrowed.

As was noted for the six selected states in the CDC PNSS, children seen at pre–WIC enrollment screening visits in Tennessee have significantly higher rates of anemia than those seen at WIC follow-up visits for each specific SES group. To ensure further that variations in age or SES distribution among children at initial and follow-up visits were not the main reasons for the apparent anemia trend, analysis of the trend was done after adjusting for age and SES distributions and nature of the clinic visit. This adjusted anemia trend fit well with a first-order linear regression model ($y = 7.38 - 0.47x$; $R^2 = 0.97$, $P < .001$), which further supports the contention that the observed trend was not related to changes in age, SES, or nature of the clinic visit during the study period. The linear regression model indicated that the average annual decline of the prevalence of anemia among Tennessee children in the WIC program was 0.5% during the study period.

COMMENT

We observed a continuous decline in the prevalence of anemia, between 1975 and 1985, among a large population of low-income children enrolled in public nutrition or health programs from six geographically distant states. This decline occurred among all race, age, and SES groups studied. These findings are consistent with the two small series reported from Minneapolis and New Haven, Conn, and our previous summations of data from all states enrolled in the CDC PNSS.[illegible] The main advantage of the present study, beyond the fact that data were collected from a large number of clinics, is that the six selected states represent a stable source of surveillance data from the same programs and clinics. Because most public programs like WIC have certain family income criteria for enrollment that are relatively constant over time and among states, comparability is further ensured. The results of our detailed analysis using the Tennessee-linked WIC-birth data confirmed that SES composition of WIC participants was very stable throughout the study period.

Even though the findings of a decline in the prevalence of anemia among low-income children is encouraging, anemia remains an important health or nutrition problem among these children. We used very stringent Hgb and Hct cutoff values in this study to define anemia for a number of technical and analytical reasons. We estimate that the prevalence of anemia among children aged 1 to 5 years from low-income families in the mid-1980s probably is in the range of 6% to 8% based on the less stringent cutoff values commonly used in clinical settings.[illegible]

The most likely explanation for the declining trend of anemia among low-income children is improved iron nutrition status, since most childhood anemia in the United States is directly related to iron deficiency.[illegible] Such a decline in iron deficiency anemia may also lead to a decline in other adverse health effects related to iron deficiency, such as developmental or behavioral disturbances and increased susceptibility to lead absorption or toxicity.[illegible]

The previous studies that showed a decline in the prevalence of anemia among children from public health clinics in Minneapolis and New Haven, Conn, attributed the improvement to the WIC program.[illegible] However, we found that the prevalence of anemia declined among children who were screened before enrollment in WIC or other public health programs, suggesting that other factors may also be involved in the decline. More likely, the observed decline of anemia prevalence among the preenrolled children is due to a general improvement of iron nutritional status among infants and children in the United States. This contention is supported by several well-documented changes in infant- and child-feeding practices in the United States over the past 20 years that were known or intended to improve iron nutrition in infancy and early childhood: greater frequency and duration of breast-feeding; the substitution of iron-fortified formulas for unfortified formulas and cow's milk; a trend toward the longer duration use of iron-fortified formulas; and increased use of iron-fortified infant cereals.[illegible] In addition, the recently completed 1985 National Food Consumption Survey documented a significantly higher daily intake of iron among US children aged 1 to 5 years compared with the 1977 survey.[illegible] Some of these changes in feeding patterns and nutrient intake may be attributable to the concerted nutrition education efforts of the pediatric community.[illegible]

The results of two other recent studies further support the possibility of a generalized improvement in childhood iron nutrition status that is not restricted to low-income children. In one study of middle-class children seen at a private pediatric practice in Minneapolis, the prevalence of anemia declined significantly between 1969 and 1986.[illegible] In another study that compared childhood prevalence of iron deficiency (low-transferrin saturation) between the first (1970 to 1975) and second (1976-1980) National Health and Nutrition Examination Surveys, the prevalence of iron deficiency declined significantly for US children aged 1 to 3 years.[illegible]

In addition to the evidence that has suggested a generalized improvement in iron nutritional status in infancy and childhood in the United States, the results of our study also support the contention that public programs, such as WIC, may have contributed to the decline in the prevalence of anemia among low-income children.[illegible] This conclusion is based on the consistent observations that children who were not enrolled in the WIC program (based on preenrollment screening visits) have a higher prevalence of anemia than children of the same age who already have been in the WIC program for some time (based on assessment at follow-up visits). Even though the background of these two groups of children may not be fully comparable, the relatively large difference in the prevalence of anemia between the groups suggests that the WIC program may have a positive effect on the iron nutritional status of children enrolled. Possible reasons for better iron nutrition for children enrolled in WIC programs are as follows: (1) the WIC program emphasizes infant iron nutrition by providing iron-fortified infant formula and cereal up to 12 months of age, as well as nutritional education to the family; and (2) children who participate in the WIC program undergo periodic screening for anemia and, thus, may be more likely to be diagnosed and treated for iron deficiency than those children who do not participate in the WIC program. In the recently released report of the national WIC evaluation, Rush[24] demonstrated that infants and children in the WIC program have greater iron and vitamin C intake than non-WIC controls, further supporting the possibility that the WIC program has a positive impact on childhood iron nutritional status.

In conclusion, we observed a significant and consistent decline in the prevalence of anemia among low-income children of diverse geographic, racial, and SES risk backgrounds. This encouraging decline in the prevalence of anemia is probably the result of improved iron nutritional status among these children. We suspect that the general improvement of iron intake among US infants and children, as well as the specific effect of public nutrition programs such as WIC, have jointly contributed to better iron nutritional status. It is hoped that the current prevalence of anemia of low-income children can be further reduced through continuing educational and service efforts directed toward bet[illegible]ron nutrition by public health programs, as well as by individual health care workers.

We thank the following participants in the Centers for Disease Control Pediatric Nutrition Surveillance System for their contributions: Office of Nutrition Services, Arizona Department of Health Services, Phoenix; Nutrition Branch, Department of Health Services, Division of Maternal and Child Health, Kentucky Cabinet of Human Resources, Frankfort; Nutrition Section, Office of Preventive and Public Health Services, Louisiana Department of Health and Human Resources, New Orleans; Nutrition/Women, Infants, and Children Program, Clinical Programs Bureau, Health Sciences and Medical Facilities Division, Montana State Department of Health and Environmental Sciences, Helena; Women, Infants, and Children Program, Oregon State Health Division, Portland; and Nutrition and Supplemental Food Programs, Tennessee Department of Health and Environment, Nashville. We thank the staff of the Statistical Branch and Field Services Branch of the Nutrition Division for their contribution to the Pediatric Nutrition Surveillance System. We also thank Thomas Spillman, MS, of the Tennessee Vital Health Records Center for assistance in the usage of Tennessee birth records, and James Marks, MD, Peter R. Dallman, MD, and Louis K. Diamond, MD, for their review and comments.

References

1. Miller V, Swaney S, Deinard AS: Impact of the WIC program on the iron status of infants. *Pediatrics* 1985;75:100-105.
2. Vazquez-Seoane P, Windom R, Pearson HA: Disappearance of iron deficiency anemia in a high risk infant population given supplemental iron. *N Engl J Med* 1985;313:1239-1240.
3. *Nutrition Surveillance 1983*, US Dept of Health and Human Services publication (CDC) 85-8295. Atlanta, Centers for Disease Control, 1985.
4. *Nutrition Surveillance 1982*, US Dept of Health and Human Services publication (CDC) 85-8295. Atlanta, Centers for Disease Control, 1984.
5. *Nutrition Surveillance 1981*, US Dept of Health and Human Services publication (CDC) 84-8295. Atlanta, Centers for Disease Control, 1984.
6. *Nutrition Surveillance 1980*, US Dept of Health and Human Services publication (CDC) 83-8295. Atlanta, Centers for Disease Control, 1982.
7. Trowbridge FL: Malnutrition in industrialized North America, in *Malnutrition: Determinants and Consequences*. New York, Alan R Liss Inc, 1984, pp 45-58.
8. Committee on Nutrition, American Academy of Pediatrics: *Pediatric Nutrition Handbook*. Elk Grove Village, Ill, American Academy of Pediatrics, 1985.
9. Miettinen OS (ed): *Theoretical Epidemiology*. New York, John Wiley & Sons Inc, 1985, pp 195-200.
10. Steel RGD, Torrie JH: *Principle and Procedures of Statistics*, ed 2. New York, McGraw-Hill International Book Co, 1980.
11. Dallman PR, Yip R, Johnson C: Prevalence and causes of anemia in the United States, 1976-1980. *Am J Clin Nutr* 1984;39:437-445.
12. Oski FA: Non-hematological manifestation of iron deficiency. *AJDC* 1979;133:315-322.
13. Dallman PR: Manifestation of iron deficiency. *Semin Hematol* 1982;19:19-30.
14. Lin-Fu JS: Vulnerability of children to lead exposure and toxicity. *N Engl J Med* 1973;289:1229-1233.
15. Mahaffey KR: Nutritional factors in lead poisoning. *Nutr Rev* 1981;39:353-362.
16. Rees J, Monsen E, Merrill J: Iron fortification of infant foods. *Clin Pediatr* 1985;24:707-710.
17. Sarett HP, Bain KR, O'Leary JC: Decision on breast-feeding or formula feeding and trends in infant-feeding practices. *AJDC* 1983;137:719-725.
18. Martinez GA, Krieger FW: 1984 Milk feeding patterns in the United States. *Pediatrics* 1985;76:1004-1008.
19. Human Nutrition Information Service: *Nationwide Food Consumption Survey, Continuing Survey of Food Intakes by Individuals, Women 19-50 Years and Their Children 1-5 Years, 1 Day, 1985*. US Dept of Agriculture NFCS, CSFII Report 85-1, 1985.
20. Committee on Nutrition, American Academy of Pediatrics: Iron balance and requirement in infancy. *Pediatrics* 1969;43:34-41.
21. Committee on Nutrition, American Academy of Pediatrics: Iron supplementation for infants. *Pediatrics* 1976;58:765-768.
22. Yip R, Walsh KM, Goldfarb M, et al: Declining childhood anemia prevalence in a middle-class setting: A pediatric success story? *Pediatrics*, in press.
23. Yip R, Binkin NJ, Trowbridge FL: Declining childhood anemia prevalence in the United States: Evidence of improving iron nutrition, abstracted. *Blood* 1986;68:51.
24. Rush D: *The National WIC Evaluation: An Evaluation of Special Supplemental Food Program for Women, Infants, and Children*. US Dept of Agriculture, 1986.

United States
Department of
Agriculture

Agricultural
Research
Service

Northern States Area
Grand Forks
Human Nutrition
Research Center

2420 2nd Avenue, N
P.O. Box 7166
University Station
Grand Forks, North Dakota
58202-7166

June 1, 1989

J. Terry Williams, R.D., M.P.H.
Department of Health and Social Services
Division of Health and Medical Services
WIC Program
Hathaway Building
Cheyenne, WY 82002

Dear Terry:

As you requested, Bonnie Hoverson and I have completed some calculations to assess the nutritive value of the WIC food package if revised to exchange 2 pounds of lean ground beef and 2 pounds of legumes for 1 1/2 dozen eggs and 23 ounces of cereal. As before, we used Kix cereal and orange juice as the cereal and fruit juice for calculation purposes. Dried navy beans were chosen to represent legumes. Vitamin values for navy beans were adjusted for cooking losses using published retention estimates from USDA. The impact of substituting navy beans for 9 ounces of cereal was assessed with and without the additional substitution of 2 pounds of beef for 1 1/2 dozen eggs and 14 ounces of cereal.

As you can see from the nutrient calculations, the substitution of beans and beef resulted in 19% more protein (mostly from beans), 7% more fat (mostly from beef), 16% less iron (mostly because of beef), 43% more magnesium (mostly from beans), 31% more zinc (from both beans and beef), 66% more copper (mostly from beans) and vitamin contents reduced by 7 to 23%. As before, we used the model of Monsen, which accounts for the enhancing effect of ascorbic acid and meat on iron absorption to estimate the amount of iron that could be absorbed from the food package. If one ignores the effect of phytic acid from the beans, the iron available for absorption from the foods in the package is roughly equivalent, at about 1.2 mg iron per day, for all three packages (the original foods, the package with beans substituted for cereal, or the package with beef and beans substituted for cereal and eggs). You will recall that the estimated available iron was 1.0 mg from the package that substituted beef without beans.

It is difficult to estimate the impact of the phytic acid in the beans on iron absorption. One cup of cooked beans contains about 700 mg of phytic acid (J Am Dietet Assoc 79: 433-436, 1981), equivalent to about 200 mg of phytate phosphorus. Hallberg et al. (Am J Clin Nutr 49: 140-144, 1989) found that 100 mg of phytate phosphorus reduced iron absorption by 69% from a meal of refined wheat rolls. A greater amount (250 mg) of phytate phosphorus inhibited iron absorption by 82%, and neither meat nor 100 mg ascorbic acid restored absorption to even 50%

Agricultural
Research
Service

of the absorption without phytic acid. Two pounds of dried beans in the WIC food package will provide a little more than 11 cups of beans when cooked, influencing 12% of the meals if 1 cup portions are assumed. If we assume that phytic acid (in 12% of the meals) would reduce nonheme iron absorption by 80% in meals already low in availability (e.g., 1% rather than 5% absorption) and negate the enhancing effects of ascorbic acid and meat and further reduce nonheme iron absorption by 50% in meals with otherwise high availability (e.g., 2.5 rather than 20% absorption), then the available iron in either package that includes beans (with or without beef) would be close to 1.0 mg. Obviously, this number rests on many assumptions; the bottom line is that dried beans contain substantial amounts of phytic acid which will reduce absorption of iron. Zinc absorption will also be negatively affected by phytic acid, so that the additional zinc in the package with beans and beef may not provide any more bioavailable zinc than the original WIC package.

I am concerned about the acceptability to participants of substituting 2 more pounds of dried beans for cereal in the WIC food package (bringing the total to 2 to 3 pounds of dried beans, depending on participant eligibility). I believe the beans, in contrast to the cereal, are more likely to be unused, or only partially used, because more preparation is required, several servings are commonly prepared at one time, and cooked refrigerated beans will need to be eaten within a few days. Obviously, the nutritional value of the package is a moot point if the foods are not consumed.

Though I initially was enthusiastic about determining the nutritional impact of substituting beef for cereal and eggs in the WIC food package, upon further examination I feel that such a substitution does not improve the nutritional value of the package, and may even be nutritionally disadvantageous. I realize that there may be considerable congressional support from beef-producing states for inclusion of beef in the WIC package. However, I doubt that it can be justified on nutritional merit.

I have been contacted this week by Ronda Rhoda of the USDA Food and Nutrition Information Service, who has been receiving inquiries on this subject and requested copies of these calculations. I am sending her copies of my correspondence to you. I hope that my evaluation is useful to you.

Sincerely,

Janet R. Hunt

Janet R. Hunt, Ph.D., R.D.
Research Nutritionist
(701) 795-8328

NUTRIENT COMPOSITION/PER DAY

	Amt	Food energy Kcal	PRO g	CHO g	Fat g	Crude Fiber g	Ca mg	Fe mg	Mg mg	Zn mg	Cu mg	Ascorbic Acid mg	Thia mg	Ribo mg	Niac mg	B_6 mg	Folacin mcg	Vit A IU
Kix	36 oz	131	3.02	27.72	0.77	0.20	42	9.60	14	0.29	0.055	17.8	0.436	0.503	5.905	0.604	118	1479
Whole Milk	12 qt	237	12.67	17.94	12.86	0	460	0.19	52	1.46	0.039	3.6	0.146	0.624	C.323	0.162	19	485
Cheddar Cheese	4 lb	240	14.85	0.76	19.77	0	430	0.41	17	1.86	0.036	0	0.016	0.224	0.048	0.044	11	632
Eggs	2-1/2 doz	78	6.01	0.59	[illegible] 52	0	28	1.03	6	0.71	0.084	0	0.043	0.149	0.031	0.059	32	257
Orange Juice	184 fl oz	79	1.11	18.53	0.26	0.19	15	0.83	21	0.13	0.107	64	0.113	0.053	0.591	0.166	34	329
TOTAL		765	38	66	39	0.4	975	12.1	110	4.5	0.32	86	0.75	1.55	6.90	1.04	215	3182
plus (+) Navy beans, raw	2 lb	100	6.66	18.09	0.38	1.65	46	1.92	52	0.758	0.262	0.9	0.125*	0.052*	0.431*	0.091*	55*	1
minus (-) Kix	9 oz	33	0.75	6.93	0.19	0.05	10	2.40	4	0.073	0.014	4.4	0.109	0.126	1.476	0.151	30	370
TOTAL		832	44	77	39	2.0	1011	11.6	158	5.1	0.57	83	0.77	1.48	5.85	0.98	240	2813
minus (-) Eggs	1-1/2 doz	47	3.60	0.36	3.31	0	17	0.62	4	0.43	0.050	0	0.026	0.089	0.018	0.036	19	154
Kix	14 oz	51	1.17	10.78	0.30	0.08	16	3.73	6	0.11	0.022	6.9	0.170	0.196	2.297	0.235	46	575
plus (+) Navy beans, raw	2 lb	100	6.66	18.09	0.38	1.65	46	1.92	52	0.758	0.262	0.9	0.125*	0.052*	0.431*	0.091*	55*	1
Hamburger, lean	2 lb	79	5.28	0	6.16	0	2	0.53	5	1.151	0.022	0	0.015	0.063	1.345	0.075	2	0
TOTAL		846	45	72	42	2.0	990	10.2	157	5.8	0.53	80	0.70	1.38	6.36	0.93	207	2454

*Retention factors for Navy beans cooked, undrained, have been applied.

from: Recommended Dietary Allowances, National
Research Council, 1980 (Ninth Edition).

Discussion of heme iron begins on page 139.

Trace Elements

IRON

Iron is a constituent of hemoglobin, myoglobin, and a number of enzymes and therefore is an essential nutrient for man (Bothwell and Finch, 1962). In addition to these functional forms, there are storage forms of iron, which can amount to 30 percent of the total body content of iron. Iron deficiency results first in reduction of these stores, and only after they are depleted does a reduction of hemoglobin concentration occur. Anemia is therefore not a very sensitive criterion of iron depletion; early states of iron deficiency can be recognized only by examination of iron stores by either direct or indirect methods (Finch, 1971).

In contrast with other mineral elements, there is no physiological regulation of iron metabolism through increased or decreased excretion. The main control of iron status is at the site of intestinal absorption. The absorption of iron is a complex process that is influenced by the intestinal mucosa (Crosby, 1968), the amount and chemical nature of iron in the ingested food (Layrisse *et al.*, 1968), and a variety of dietary factors that increase or decrease the availability of iron for absorption (Cook *et al.*, 1972). The average loss of iron in the healthy adult man is estimated at approximately 1 mg/day (Green *et al.*, 1968). In adult women there is an additional loss of 0.5 mg/day, the amount of iron in the menstrual blood flow averaged over one month (Hallberg *et al.*, 1966). However, there are wide variations, and menstrual losses of over 1.4 mg/day have been observed in about 5 percent of normal women. Pregnancy increases the requirement to approximately 3.5 mg of iron per day, with a range from 2 to 4 mg (AMA, 1968). Loss of iron through lactation is approximately 0.5–1 mg/day. This amount roughly equals menstrual loss, which often remains in abeyence during the period of lactation. Children and adolescents must retain iron not only to maintain hemoglobin concentration but also to increase their total iron mass during the period of growth. Clinical studies have indicated that an additional 0.8–1 mg/day is required to maintain normal hemoglobin concentration in these age groups (Moore, 1965). When the dietary supply of absorbable iron is sufficient, the intestinal mucosa regulates iron absorption in a manner that tends to keep body iron content constant. In the event of iron deficiency, the rate of iron absorption increases by a factor of 2–3 over that found in normal subjects. However, this response does not appear sufficient to prevent anemia in iron-deficient subjects who are only mildly anemic and whose iron intake is marginal.

There are four situations in which iron intake is frequently inadequate in the United States: (1) in infancy, because of the low iron content of milk and because the endowment of iron at birth is usually not sufficient to meet needs beyond six months; (2) during the periods of rapid growth in childhood and adolescence, because of the needs to fill expanding iron stores; (3) during the female reproductive period, because of menstrual iron losses; and (4) in pregnancy, because of the expanding blood volume of the mother, the demands of the fetus and placenta, and blood losses in childbirth. In order to provide for the necessary retention of 1 mg/day in adult males and postmenopausal females, and assuming an average availability of 10 percent of the food iron, an allowance of 10 mg/day is recommended. The allowance for women of childbearing age is set at 18 mg/day in order to meet the additional needs imposed by menstrual iron losses. The increased requirement during pregnancy cannot be met by the iron content of habitual diets in the United States, nor by the existing iron stores of many women; therefore, daily supplements of iron are recommended. These usually range from 30 to 60 mg/day; the amount should be determined by the physician administering prenatal care. Iron needs during lactation are not substantially different from those of nonpregnant women, yet continued supplementation of the mother for 2–3 months after parturition is advisable in order to replenish stores depleted by pregnancy (NRC, 1970). The normal term infant can maintain optimal hemoglobin levels with an iron intake of 1 mg/kg/day, starting about the third month of life. Low-birth-weight infants (under 2500 g) and those with significant reduction in total hemoglobin mass require 2 mg/kg/day, starting soon after birth. The recommended allowance is based on an average need of 1.5 mg/kg per day during the first year of life.

The toxicity of food iron is low, and deleterious effects of daily intakes of 25–75 mg are unlikely in healthy persons (Finch and Monsen, 1972). On the other hand, there are approximately 2000 cases of iron poisoning each year in the United States, mainly in young children who ingest the medicinal iron supplements of their parents. The lethal dose of ferrous sulfate for a 2 year old is near 3 g; that for adults ranges between 200 and 250 mg/kg of body weight (NRC, 1977).

The results of numerous studies of iron absorption in human subjects were evaluated and recommendations for planning and evaluating dietary iron intakes have been made (Monsen *et al.*, 1978). Modern knowledge of the existence of two categories of iron in foods—heme and nonheme compounds—and of dietary factors influencing their absorption makes it possible now to replace the previous estimate of an average 10 percent absorption of dietary iron by a more precise concept. This concept provides means for the calculation of absorbable iron *in any one meal* and provides a basis for increasing the availability of dietary iron through selection of appropriate food components of individual meals. Although not yet tested under field conditions, the application of this concept promises to improve the iron nutritional status of population groups in need of more iron; at the same time it can be used to decrease the exposure of individuals with excessive iron absorption. The proposed method of calculating absorbable iron has been described in detail (Monsen *et al.*, 1978). In brief, the amounts of heme and nonheme iron in any *particular meal* must be considered separately because of their different availability and susceptibility to influences from other dietary ingredients. Although the proportion of heme iron in animal tissues varies, it amounts to an average of 40 percent of the total iron in all animal tissues, including meat, liver, poultry, and fish. The remaining 60 percent of iron in animal tissues and all the iron of vegetable products are treated as nonheme iron. The absorption of this category is enhanced by two well-defined factors: ascorbic acid and the quantity of animal tissues present in *each meal*. On the basis of the concentration of these enhancing factors, meals can be classified as of low, medium, or high availability of their nonheme iron. The method requires the computation of five variables for *each meal:*

(1) Total iron (values from standard food composition tables);
(2) Heme iron (40 percent of total iron of animal tissues);

(3) Nonheme iron [(1) minus (2)];
(4) Ascorbic acid (present in meal as consumed);
(5) The amount of meat, poultry, and/or fish.

The absorption factors in Table 8 are calculated for women who are not iron deficient or are only slightly so and who have iron stores of approximately 500 mg. Such stores are nutritional goals and are not representative of the present status of most United States women. The actual absorption factors would be higher for iron-deficient subjects who also have a higher iron requirement, and lower for subjects with greater iron stores. In spite of these differences, the values in Table 8 can be used for the approximate calculation of relative iron availability in all subjects.

It must be realized that there are dietary and medicinal substances decreasing iron absorption, such as calcium and phosphate salts, EDTA, phytates, tannic acid in tea, and antacids (Monsen *et al.*, 1978). Inordinate consumption of such substances can be expected to decrease iron absorption substantially and should be avoided when the iron status of an individual is compromised.

TABLE 8 Availability of Iron in Different Meals[a]

	Absorption of Iron Present in Meal (%)	
Type of Meal	Nonheme Iron	Heme Iron
Low-Availability Meal	3	23
<30 g meat, poultry, fish <25 mg ascorbic acid		
Medium-Availability Meal	5	23
30–90 g meat, poultry, fish or 25–75 mg ascorbic acid		
High-Availability Meal	8	23
>90 g meat, poultry, fish or >75 mg ascorbic acid; or 30–90 g meat, poultry, fish plus 25–75 mg ascorbic acid		

[a] Adapted from Monsen *et al.*, 1978.

It is recommended that the calculation of absorbable iron, as stated above, be used in diet planning and in the evaluation of iron intake. The evaluation of absorbable iron, although subject to future refinement, expresses more appropriately than the calculation of total iron the present state of knowledge by taking into account the nearly tenfold variability of iron absorption, depending on source and dietary composition. An example for calculating the amount of absorbable iron from two meals of nearly identical iron content, but of different absorbability, is given in Table 9. The calculated amount of absorbable iron can be related to the RDA in the summary table by multiplying the value by a factor of 10, because the RDA are based on the assumption that 10 percent of the total iron is absorbed. Thus 1.8 mg of *absorbable* iron (multiplied by 10) would meet the RDA for adult women, regardless of the total dietary iron from which this figure was derived.

References

AMA (American Medical Association, Committee on Iron Deficiency). 1968. Iron deficiency in the United States. J. Am. Med. Assoc. 203:407–412.

Bothwell, T. H., and C. A. Finch. 1962. Iron metabolism. Little, Brown and Co., Boston, Mass. 440 pp.

Cook, J. D., M. Layrisse, C. Martinez-Torres, R. Walker, E. Monsen, and C. A. Finch. 1972. Food iron absorption measured by an extrinsic tag. J. Clin. Invest. 51:805–815.

Crosby, W. H. 1968. Iron absorption, pp. 1553–1570. *In* C. F. Code [sect. ed.] Handbook of physiology. Vol. III, Alimentary canal; Sec. 6, Intestinal absorption. American Physiological Society, Washington, D.C.

Finch, C. A. 1971. Criteria for evaluation of the status of iron nutrition, pp. 1–4. *In* Extent and meanings of iron deficiency in the United States. Summary proceedings of a workshop. Food and Nutrition Board, National Research Council, National Academy of Sciences, Washington, D.C.

Finch, C. A., and E. R. Monsen. 1972. Iron nutrition and the fortification of food with iron. J. Am Med. Assoc. 219:1462–1466.

Green, R., R. W. Charlton, H. Seftel, T. H. Bothwell, F. Mayet, E. B. Adams, C. A. Finch, and M. Layrisse. 1968. Body iron excretion in man: a collaborative study. Am. J. Med. 45:336–353.

Hallberg, L., A. M. Hogdahl, L. Nilsson, and G. Rybo. 1966. Menstrual blood loss—a population study. Variation at different ages and attempts to define normality. Acta Obstet. Gynecol. Scand. 45:320–351.

Layrisse, M., C. Martínez-Torres, and M. Roche. 1968. Effect of interaction of various foods on iron absorption. Am. J. Clin. Nutr. 21:1175–1183.

Monsen, E. R., L. Hallberg, M. Layrisse, D. M. Hegsted, J. D. Cook, W. Mertz, and C. A. Finch. 1978. Estimation of available dietary iron. Am. J. Clin. Nutr. 31:134–141.

Moore, C. V. 1965. Iron nutrition and requirements. Ser. Haematol. 6:1–14.

NRC (National Research Council, Committee on Maternal Nutrition). 1970. Maternal nutrition and the course of pregnancy. National Academy of Sciences. Washington, D.C. 241 pp.

TABLE 9 Examples of Method to Calculate Absorbable Iron from Single Meals[a]

Meal	Wt (g)	Total Iron (mg)	Heme Factor	Heme Iron (mg)	Nonheme Iron (mg)	Ascorbic Acid (as served) (mg)
Meat, Poultry, Fish (26 g protein, 650 kcal)						
Beef–vegetable stew						
Beef, lean, raw, 3 ounces	85	2.7	0.4	1.1	1.6	0
Potatoes, ½ cup	78	0.4			0.4	15
Carrots, 2 tablespoons	20	0.1			0.1	1
Onions, 2 tablespoons	15	0.1			0.1	2
Green pepper, raw, 2 slices	20	0.2			0.2	26
Breadsticks, 2 medium	35	0.3			0.3	Trace
Margarine, 2 teaspoons	10	0			0	0
Peaches, canned, ½ cup	128	0.4			0.4	4
Gingerbread	63	1.0			1.0	Trace
TOTAL		5.2		1.1	4.1	46
Evaluation: 30–90 g meat,			% absorbable iron	23%	8%	
25–75 mg ascorbic acid:			absorbable iron (mg)	0.25	0.33	
High availability.			total absorbable iron (mg)	0.58 mg		
Nonmeat, Nonpoultry, Nonfish (22 g protein, 750 kcal)						
Beans, navy, cooked ½ cup	95	2.6			2.6	0
Rice, brown, cooked, ½ cup	98	0.5			0.5	1
Cornbread, 1 piece	78	0.9			0.9	0
Margarine, 1 tablespoon	14	0			0	0
Apple slices, ½ cup	55	1.1			1.1	1
Walnuts, black, raw, 1 tablespoon	8	0.5			0.5	0
Almonds, raw, 1 tablespoon	8	0.4			0.4	Trace
Yogurt, skim milk, 1 cup	226	0.1			0.1	2
TOTAL		5.1			5.1	4
Evaluation: No meat, poultry, fish;			% absorbable iron		3%	
less than 25 mg ascorbic acid:			absorbable iron (mg)	0	0.15	
Low availability.			total absorbable iron (mg)	0.15 mg		

[a] Adapted from Monsen *et al.*, 1978.

PREPARED STATEMENT OF THE AMERICAN SCHOOL FOOD SERVICE ASSOCIATION, SUBMITTED BY BEVERLY LOWE, MARY KLATKO, AND ANNETTE BOMAR

Mr. Chairman, members of the committee, I am Beverly Lowe, the president-elect of the American School Food Service Association (ASFSA), and the Director of child nutrition in Hampton, Virginia. We very much appreciate the opportunity to testify this morning on the Child Nutrition Reauthorization Act of 1989.

With me today is Mary Klatko, the chairman of the ASFSA Public Policy and Legislative Committee and the Director of the Food and Nutrition Service in Howard County, Maryland; and Annette Bomar, the chairman of the ASFSA State Directors' Section and the Director of child nutrition for the State of Georgia.

INTRODUCTION

Mr. Chairman, before we turn to the specific provisions of the Child Nutrition Reauthorization Act of 1989, we would like to express our deep appreciation to the members of this committee for your support on the 1990 budget. As you know, the child nutrition budget submitted by President Bush was significantly different than the child nutrition budget submitted by former President Reagan. We believe that change in policy had a great deal to do with the questions asked by members of this committee at Secretary Yeutter's confirmation hearing, and the letter sent by Senator Lugar and others on January 24 to Secretary Yeutter. It has been a very long time since we have been able to take up a reauthorization bill outside the context of a budget debate. We thank you.

The American School Food Service Association has 65,000 members throughout the Nation. Every day, our members serve some 24 million USDA school lunches and some 4 million school breakfasts. The program was first enacted in 1946 as a measure of national security because so many of our young people failed their physical examination during World War II as a result of nutrition deficiency diseases. Today school lunch is a $13 billion "industry."

REAUTHORIZATION BILL

The child nutrition programs are a large and complex Federal initiative that would be greatly improved by the Child Nutrition Reauthorization Act of 1989.

We support startup funds for the School Breakfast Program, and expanded eligibility of private nonprofit organizations to sponsor the Summer Food Service Program for Children. We also support expansion of the Nutrition Education and Training Program, the proposed improvements in the Child Care Food Program, and the Special Supplemental Feeding Program for Women, Infants and Children (WIC).

Recognizing, however, that other witnesses will be addressing these programs in detail, allow us to address those provisions of the legislation that directly impact on the National School Lunch Program:

DIETARY GUIDELINES FOR CHILDREN

The Surgeon General has recently stated that 5 of the 10 leading causes of death in America are related to diet. The National Academy of Sciences in its recent report *Diet and Health: Implications for Reducing Chronic Disease Risk* examined at length the relationship between diet and disease. It is only reasonable to expect parents and the media to be asking more and more questions about the nutritional quality of school meals.

Mr. Chairman, we are very proud of the School Lunch Program and very proud of the meal quality we serve to our customer, the Nation's children. Our organization has endorsed the USDA/HHS *Dietary Guidelines* and we have written to every food processor in the United States that sells food to the schools asking them to follow the *Dietary Guidelines*.

We have worked with this committee on the commodity distribution reform legislation wherein you asked the Secretary to modify the specifications of USDA commodities with an eye toward the *Dietary Guidelines*. But we believe that we need to do more in this area, and we need the leadership of the Department of Agriculture.

The Secretary of Agriculture, in coordination with the Secretary of Health and Human Services, should develop Dietary Guidelines for Children, which could then be applied to the School Lunch Program. In asking for Dietary Guidelines for Children, it is important to point out that we do not have any preconceived notion as to what they should say or whether they should be quantitative or qualitative. In the absence of sound, consensually based nutrition information for children there is a vacuum into which any self-appointed expert may venture. If the consensus in the scientific community is that children below the age of 20 should not restrict their fat consumption, we need to be so advised. If, on the other hand, children over the age of 2 should limit their fat consumption to a particular level of energy then we need to be assured of the appropriateness of that action.

The provision in the legislation which calls for the development for Dietary Guidelines for Children is an important step forward that needs USDA leadership.

SCHOOL FOOD SERVICE INSTITUTE ON NUTRITION AND MANAGEMENT

The American School Food Service Association strongly endorses granting the Secretary of Agriculture the statutory authority to establish and maintain a school food service institute on nutrition and management. The creation of such an institute is an idea whose time has come. With the increased financial pressure on every local school food service authority and the increased attention by parents and the public on questions relating to health and nutrition. It is therefore imperative that the school nutrition programs have the necessary research and development to support sound management practices.

We see the institute as a facility that can assist the 18,000 school food service authorities in providing high quality, nutritious and cost-effective meal service to children. The institute would assist with menu planning, layout and design of facilities, delivery systems, financial management, the efficient use of computers, food quality and safety instruction, procurement procedures and quality assurances, and most importantly, with the implementation of the USDA/HHS *Dietary Guidelines.*

The National School Lunch Program is the largest food service system in the country, operating in some 90,000 schools. It is simply not reasonable to expect each food service director to be able to address each of the highly technical elements of school food service programs without any research and technical assistance backup from the Department of Agriculture. We, therefore, strongly support an authorization creating the School Food Service Institute on Nutrition and Management.

MONITORING AND PAPERWORK REDUCTION

Over the last decade the Government has made a major effort to deregulate a number of areas. Regrettably, in the area of child nutrition we have gone in the opposite direction. The School Lunch Program is far more cumbersome, far more complex, and much more difficult to administer today than it was 10 years ago. Documentation, verification, and excessive monitoring reviews all make it more and more difficult for us to do our job.

Just a few weeks ago, on April 21, 1989, we were very pleased and very proud to receive a personal note from President Bush commending us for the important contribution we make to our Nation's schools (attached). With all due respect, however, it is getting harder to carry out our mission of providing high quality nutritious foods to the Nation's children under the constraints of ever increasing paperwork.

As you know, this year's appropriation bill is seeking an additional $6.4 million to implement yet another, new, additional, independent audit of school meal claims. ASFSA does not support the Federal Review System (FRS).

This new funding would, in short, establish a legion of Federal auditors to audit local programs which are already audited by State auditors—a clear redundancy of effort.

The American School Food Service Association strongly supports program integrity. But USDA should be required to coordinate with State audits, not duplicate State audits. USDA should work with local administrators, and train administrators, in a cooperative approach to a common objective. We attach to this statement suggested language for a coordinated monitoring review system.

May we also suggest several other items that would reduce paperwork and improve administration:

(a) Omit the requirement in the statute that all adult household members provide Social Security numbers on the school lunch application; Social Security numbers could be collected at the time of verification. The need to provide Social Security numbers greatly impedes the application process and is, in fact, not used in the application process;

(b) Establish reimbursement procedures that do not require the schools to count all 24 million children by category every single day. Given our sophistication with statistics and computers, we are confident that program integrity can be maintained without a categorical count being taken every school day;

(c) Allow children who are members of food stamp households and AFDC Assistance Units to be "automatically eligible" to receive school lunch and breakfast without another application process for the meals;

(d) Simplify the income reporting requirements so that each household member is not required to list their income by source and make applications valid for more than one school year;

(e) Eliminate the requirement that States execute a new contract with each school food service authority each year; and

(f) Simplify the statutory requirements for the annual Nutrition Education and Training State plan.

Mr. Chairman, we would like to attach to our testimony a summary of our paperwork reduction priorities which have been developed by the association. We would very much appreciate your consideration of these paperwork reduction initiatives.

SUMMARY

Mr. Chairman, we commend you and the other members of the committee for the development of the Child Nutrition Reauthorization Act of 1989. We commend you for the time and attention you are devoting to this legislation.

Thank you.

We would be happy to answer any questions that you may have.

[Attached material follows:]

THE WHITE HOUSE,
Washington, April 21, 1989.

To the Members of the American School Food Service Association:

As some of you know, I was privileged to enjoy lunch recently at a school cafeteria just outside Washington. It occurred to me that maybe you don't always get the recognition you deserve, so this note is my expression of gratitude on behalf of the American people.

Every day you serve more meals than the largest fast-food restaurant chain: 24 million USDA lunches a day. These meals are rich in nutrition and variety and give young students a great boost through the day. I commend you for serving them with courtesy and professionalism.

You've heard me say that nothing is more crucial to our Nation's future than the education of young people. Thank you for making such an important contribution to our Nation's schools.

With best wishes for continued success in the service of America's young people,

GEORGE BUSH.

AMERICAN SCHOOL FOOD SERVICE ASSOCIATION

1989 LEGISLATIVE ISSUE PAPER

INVEST IN OUR CHILDREN

In October of 1988 candidate George Bush published a paper entitled *Invest in Our Children*. It stated that "George Bush believes that our national character can be measured by how we care for our children—all of the nation's children—how we invest in them, how they grow, and what we convey to them. Children embody our respect for ourselves and our future; they reflect our value as a nation and as a people. George Bush will lead a national commitment to invest in our children." With regard to proper nutrition, *Invest in Our Children* stated that "George Bush will request sufficient funding for important nutrition programs designed to reach young children—such as the School Lunch Program, and the Women, Infants and Children Program."

The American School Food Service Association is proud to endorse that commitment and believes the following positions are consistent with that pledge.

GENERAL ASSISTANCE SUPPORT

1. ASFSA strongly supports federal general assistance (Section 4 payments) for all school lunches. We would oppose any reduction in child nutrition support, and in particular any proposal that would eliminate or reduce the cash or commodity support to schools based upon the participation of students with family income above 185 percent of the poverty line. Such a proposal would lower the federal subsidy for approximately one-half of all lunches served nationwide and would therefore jeopardize the existence of the National School Lunch Program.

The National School Lunch Program was established in 1946, after the end of the Second World War. The program is now the largest feeding program in the world, and is credited with being one of the major weapons in the fight against hunger in America. Section 4 is the backbone of the school lunch program.

The Library of Congress has estimated that an elimination of the general assistance subsidy (Section 4 of the National School Lunch Act) would place 43,000 schools, with more than 21 million students, "at risk" of being forced from the National School Lunch Program. Based on the Library of Congress estimate, and ASFSA's surveys, ASFSA believes that from 10,000 to 15,000 schools and 5 million to 8 million children would be forced from the National School Lunch Program if Section 4 and commodities were eliminated.

The federal general assistance provided to schools pursuant to Section 4 of the National School Lunch Act is not a transfer payment to individuals, but is a grant-in-aid to schools to support the basic infrastructure of the school lunch program. Without this support many school districts could not afford to participate in the National School Lunch Program, thereby depriving all children in the community, including poor children, of the nutritional value of the program.

PROGRAM REAUTHORIZATIONS

2. Five child nutrition programs expire at the end of fiscal year 1989: the Nutrition Education and Training Program, the Summer Food Service Program for Children, the Commodity Distribution Program, State Administrative Expenses and Special Supplemental Food Program for Women, Infants and Children (WIC). ASFSA supports the reauthorization of all five of these programs.

DIETARY GUIDELINES

3. A. ASFSA supports the USDA/HHS *Dietary Guidelines for Americans* and requests refinement of these guidelines as they relate to children. The *Dietary Guidelines* are an excellent generalized statement of nutritional direction for a healthy population. They do not contain recommendations for specific levels of nutrient intake for subgroups of the population, especially children. Therefore, ASFSA requests that Congress require a study on how to apply the *Dietary Guidelines* to children, including, in particular, sodium, fat, and sugar recommendations.

B. In keeping with the *Dietary Guidelines*, ASFSA supports an amendment deleting the requirement that whole milk be offered as part of the School Lunch Program.

NUTRITION EDUCATION AND TRAINING PROGRAM (NET)

4. ASFSA supports the original concept of 50 cents per child per year for the purposes of nutrition education for students and ongoing training for school food service personnel. The recent level of $5 million per year for NET (10 cents per child per year) is not adequate. In FY 1990, ASFSA supports transferring the $5.2 million appropriated in 1989 for redundant meal count verification to the Nutrition Education and Training Program.

SCHOOL FOOD SERVICE MANAGEMENT INSTITUTE

5. ASFSA supports the establishment of a USDA School Food Service Management Institute. School food service is a $10 billion to $13 billion industry. Yet there is little effort made to undergird the programs with research and development.

The goal of the Management Institute is to assist schools throughout the country. A USDA School Food Service Management Institute will assist schools in the use of USDA-donated commodities, menu planning, procurement procedures, financial management, and the implementation of the USDA/HHS *Dietary Guidelines*.

In 1988 Congress appropriated $50,000 for a feasibility study of the Institute. After successful completion of the feasibility study, Congress appropriated a second $50,000 as part of the 1989 appropriation bill to continue the planning of the institute.

ASFSA believes the School Food Service Management Institute should be authorized as part of the 1989 Child Nutrition Reauthorization Bill.

COMPETITIVE FOODS

6. ASFSA supports legislation that would reestablish the authority of the Department of Agriculture to regulate the sale of competitive foods in schools from the beginning of the school day to the end of the last lunch period. USDA had promul-

gated such regulations but the U.S. Court of Appeals has ruled that the regulation exceeded USDA's statutory authority.

CHILDREN'S INITIATIVE

7. Section 2 of the National School Lunch Act declares it to be the policy of Congress "to safeguard the health and well-being of the nation's children." In light of this important goal, ASFSA supports full funding for all eligible women, infants and children in the WIC Program; providing year-round meals to low-income children through the Summer Food Service Program for Children and the Child Care Food Program and efforts to expand the School Breakfast Program.

The School Breakfast Program is particularly important to students' nutritional well-being and educational development. According to a recent study, *School Breakfast Program and School Performance*, by Dr. Alan Meyers of Boston University's School of Medicine, "breakfast program participation by low-income children is associated with significant improvement in academic performance."

NUTRITION MONITORING

8. ASFSA supports legislation to establish a comprehensive nutrition monitoring system. The nutrition monitoring activities of USDA and the Department of Health and Human Services need to be coordinated and more timely information obtained. In the 100th Congress, the House and Senate passed S. 1081 but the President did not sign the legislation. ASFSA supports this legislation being enacted in the 101st Congress.

S.A.E. FOR COMMODITY DISTRIBUTION

9. ASFSA supports providing State Administrative Expenses for the Commodity Distribution Program. States currently receive not less than 1 percent and not more than 1.5 percent of the funds provided for school lunch, school breakfast, and the special milk program to operate the program at the State level. ASFSA supports expanding S.A.E. to provide administrative funding for the Commodity Distribution Program. The Commodity Distribution Program is an important part of the federal support for child nutrition and should be included in the S.A.E. formula.

BLOCK GRANT

10. ASFSA opposes any block grant or welfare reform proposal that would incorporate child nutrition programs. These programs are too important to jeopardize with a block grant approach. As President Nixon said to the White House Conference on Food, Nutrition and Health in 1969, "the problem of malnourishment is a national responsibility."

PAPERWORK REDUCTION

11. ASFSA supports a comprehensive review of statutory and regulatory provisions to identify ways to reduce the proliferation of paperwork and administrative burden on state and local agencies administering child nutrition programs.

AMERICAN SCHOOL FOOD SERVICE ASSOCIATION,
May 25, 1989.

MEMORANDUM

To: Marshall Matz.
From: Mary Klatko, Annette Bomar.
Subject: Summary of Paperwork Reduction Priorities.

We have attempted below to briefly describe our position on paperwork reduction issues. This position has evolved from meetings March 21, 1989, and April 7, 1989, with staff, House Education and Labor Committee and staff, USDA, FNS:

(1) Amend NSLA, section 9(b)(6)(A) to include (iii) children in headstart centers. This will automatically consider as eligible for free meals, any child enrolled in an approved Human and Health Services Head Start Program.

(2) Amend National School Lunch Act sections 4(b)(1)(2) and 11(a)(1)(2)(3), b, etc., transfer eligibility for snacks currently being served in a school's outside school hours child care program from the child care food program [Section 17(a)] to the School Lunch Program. To allow the snack currently being served to be claimed

under the School Lunch Program rather than the Child Care Food Program (CCFP) would reduce paperwork for schools who currently have to file two different agreements: school lunch *and* CCFP. This does not expand eligibility of a schools' outside school hours program but shifts from CCFP to school lunch. This does not mandate a new meal or snack.

(3) Amend NSLA, section 9(d)(1). Omit requirement for all adult household members to provide Social Security numbers. Social Security numbers could be collected at the time of verification. (The verification process could require Social Security numbers of all adult household members over the age of 21. This could be cross referenced to number/names of adults over age 21 listed on application.)

(4) Amend NSLA, Section 9(d)(2)(A) to restrict the secretary from requiring income by household members by source on applications other than those under Provisions of section 11(a)(1) where applications are valid for more than one school year. Clarify that total household income where required may be provided as a result of a calculation by the determining official. Clarify that total household income on nonsection 11(a)(1) provision schools is adequate in lieu of income by source. Clarify that school and child care officials have authority to complete an application for an otherwise eligible child when parents fail to do so. Designate that "otherwise eligible" may be determined based upon knowledge of income such as residence in public housing.

(5) Amend sections 4(b)(1)(A) and 11(a)(1) to add a provision to allow "number of lunches," at the option of the school food authority, to be defined as the number of paid, free, and reduced-priced meals arrived at by multiplying approved claiming percentages, respectively, times total meal counts. Approved claiming percentages shall be determined annually as of October 1 from the school's master roster of enrolled students eligible for paid, free or reduced-price meals based upon eligibility requirements in section 9 of the Act (NSLA).

(6) Add to NSLA, section 12(j) a provision to direct the School Food Service Management Institute in cooperation with USDA to develop and pilot through State agencies and school food authorities pilot alternative accountability systems for the purpose of identifying alternatives to counting meals daily by paid, free and reduced categories and taking applications for free and reduced-price meals.

(7) Expand current paperwork reduction provisions of the NSLA:

A. Amend NSLA section 11(a)(1) to: (1) allow free and reduced-price applications in 80 percent needy schools to be valid for 3 years, and (2) allow the school to opt to use claiming percentages applied to total student meal counts in lieu of daily counts by category (paid, free, and reduced). Claiming percentages shall be determined annually as of October 1 from the school's master roster of enrolled students by category of eligibility (paid, free, and reduced). Currently, 80 percent needy schools take applications which are valid for 2 years. Currently, these schools have to count meals by category daily.

B. Amend section 11(a)(1) to allow 100 percent free or universal free schools to opt to use claiming percentages applied to total student meal counts in lieu of daily counts by category (paid, free, and reduced). Claiming percentages shall be determined annually as of October 1 from the school's master roster of enrolled students by category of eligibility (paid, free, and reduced).

Currently, these schools have to count meals by category in year one of the 3-year cycle and apply the subsequent percentages (paid, free, reduced) in years two and three. This requires a special counting system to be reinstated every 3 years.

C. Add a new provision to NSLA section 11(a)(1) to allow applications in 60 percent needy schools to be valid for 2 years. Allow the schools to opt to use claiming percentages applied to total student meal counts in lieu of daily counts by category (paid, free, and reduced). Claiming percentages shall be determined annually as of October 1 from the school's master roster of enrolled students by category of eligibility (paid, free, and reduced).

(8) Add a provision to NSLA which would provide for nonexpiring school lunch/school breakfast/special milk/child care food program and commodity distribution agreements and applicable free and reduced-meal policy. The nonexpiring nature would not prohibit State agencies from suspending or terminating agreements consistent with 7 CFR Part 3015.

(9) Add to NSLA, section 4(c) a provision to restrict terms of the Federal/State Agreement for the administration of programs under NSLA and CN Act (specifically school lunch/school breakfast/special milk/CCFP/commodity distribution/NET/Summer Food Service Program) to statute and regulations. Clarify that instructions or procedures which may generate adverse action on State agencies or districts be subject to public comment.

(10) Simplify NET paperwork. Eliminate section 19(h)(3), CN Act, which establishes excessive requirements for a NET State plan. The SY 90 guidance for developing the plan is 25 pages long. An appropriate requirement would be a NET budget, only, similar to the current SAE Plan requirement. Additionally, amend section 19(g)(2) Child Nutrition Act, to limit Federal reports to that on expenditures of Federal funds (i.e., FNS 269 Report). Currently, the section requires a report on program participation by teachers, students, etc. USDA in 7 CFR Part 227 section 227.30(f) prescribes a performance report (FNS-42) which requires NET program recipients and State agencies to report numbers such as number of children reached, etc. Without burdensome paperwork tracking, this is not feasible. Numbers provided under this requirement are often estimates due to the resource-intensive task of collecting actual data. These requirements were appropriate only when the program was new.

(11) Omit NSLA section 11(e)(1). This is a technical amendment. This provision requires States to collect data on average participation by category of paid, free, and reduced from each participating school. This is an obsolete provision since most States do not collect school data on a monthly basis. This is the kind of information required to be reviewed by school food authorities under new AccuClaim regulations (7 CFR Part 210).

(12) Add (iii) to NSLA section 9(b)(6)(A): The secretary shall authorize school food authorities and child care food program institutions to certify "automatic eligibility" of (1) children who are members of AFDC or food stamp households and (2) children participating in the Federal headstart program (?statutory citation?) by directly certifying such status with the appropriate local, State, or Federal agency. Children may based on this certification be added directly by the approving official to the school food authority's or child care food program institution's master roster of eligibles without further application.

Amend NSLA section 9(d)(2)(B) to add at the end: Documentation of a child's membership in a food stamp household may be provided directly to the approving official by the appropriate State or local food stamp agency without further application by the child's household.

Add (C) as follows to section 9(d)(2) NSLA: Documentation showing that a child is from an AFDC assistance unit (under the aid to families with dependent children program authorized under Part A of title IV of the Social Security Act [42 U.S.C. 601 et seq.]) may be provided directly to the approving official by the appropriate State or local AFDC agency without further application by the child's household.

Add (D) as follows to section 9(d)(2) NSLA: Documentation showing that a child is participating in an approved Federal headstart program (?statutory citation?) may be provided directly to the approving official without further application by the child's household.

(13) Coordinate audits (see attached).

[Attachment follows:]

Section 9 of the National School Lunch Act is amended by adding at the end thereof the following new subsection:

(f) (1) Primary monitoring of local programs authorized under this Act and the Child Nutrition Act of 1966 to ensure compliance with program statutes and regulations shall rest with the State agencies. These monitoring activities shall include systems established by the Secretary through regulations. The role of the Secretary shall be (1) to provide staff at the request of the State agency to assist States in monitoring of local programs, and (2) to review State agency compliance with monitoring regulations through the department's management evaluations of the State agencies. Such management evaluations shall include the department's monitoring of local programs as needed to determine State agencies' compliance with regulations governing their monitoring of local programs. Standards for management evaluation of State agencies performed by the department shall be based upon regulation.

(2) For each fiscal year, there is authorized to be appropriated such sums as may be necessary to enable the Secretary to carry out the provision of this subsection. One-half of the funds shall be set aside to fund requests to assist State agencies in conducting reviews and training of local and/or State program personnel in monitoring of program requirements.

PREPARED STATEMENT OF WILLIAM E. GAHR, ASSOCIATE DIRECTOR, FOOD AND AGRICULTURE ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE, WASHINGTON, DC

USE OF SURPLUS DAIRY PRODUCTS IN THE NATIONAL SCHOOL LUNCH PROGRAM

Mr. Chairman and members of the subcommittee, thank you for the opportunity to appear before this Subcommittee to present information on (1) trends in quantities of surplus dairy products that have been donated by the U.S. Department of Agriculture (USDA) to the National School Lunch Program, (2) impacts that recent reductions in such donations have had on the program, and (3) the quantities of dairy products needed for the program. This is part of the information we are developing in response to a February 1989 request from the Chairman, Senate Committee on Agriculture, Nutrition, and Forestry concerning various aspects of USDA's dairy and nutrition programs.

In summary, we found that, until recently, USDA's dairy price support program resulted in large Federal purchases of surplus butter, cheese, and nonfat dry milk. USDA has traditionally donated most of these surpluses to foreign and domestic nutrition programs, one of which is the National School Lunch Program. Donations for school lunches peaked in 1987 when USDA's Food and Nutrition Service (FNS) distributed about 275 million pounds of dairy products to the program. Recent declines in surplus purchases, however, have reduced the availability of dairy products for school lunches. More specifically, from the peak year of 1987, donated dairy products declined in 1989 by 24 percent to about 208 million pounds.

For a perspective on how these reductions have affected the School Lunch Program across the Nation, we contacted 20 State food distribution officials—individuals responsible for distributing the federally donated dairy products to local school districts. Although most of these officials believed the declines have had at least a moderately serious impact on school lunch programs, most also stated that the nutritional value of school lunches had been largely unaffected. Further, in almost all States, the price of lunches to the students had not been raised as a result of declines in donated dairy products. Most State officials, however, believed that school lunch prices will be increased next year.

You were also interested in information concerning the amounts of dairy products needed for the Nation's School Lunch Program. We attempted to define such needs in terms of quantities of dairy products necessary to provide a nutritionally sound diet. However, according to health and nutrition experts with whom we spoke, many variables affect individual nutritional needs for dairy products. As a result, it would be very difficult to develop meaningful estimates of dairy needs for the School Lunch Program as a whole.

BACKGROUND

Before I discuss trends in surplus dairy donations it might be useful to provide some background information on the purpose of and relationships between USDA's dairy price support and school lunch programs. The dairy price support program, which began in the 1940's, was intended to ensure an adequate supply of milk to the Nation by stabilizing milk prices. Under the program, USDA's Commodity Credit Corporation (CCC) purchases, at designated prices, all quantities of butter, cheese, and nonfat dry milk that cannot be used commercially. Thus, the more milk production exceeds commercial use, the more butter, cheese, and nonfat dry milk CCC purchases and the greater the Federal cost.

Because dairy production grew faster than commercial use, CCC purchases of surplus dairy products under the price support program grew dramatically during the early 1980's. From 1980 to 1983, CCC price support purchases more than doubled from 8.2 billion pounds to 16.6 billion pounds. Similarly, Federal costs for these purchases jumped from $1.3 billion to $2.6 billion. In 1983, the Congress attempted to reduce the price support purchases through (1) a Milk Diversion Program, which paid farmers to reduce dairy production; (2) reductions in price supports, which were intended to reduce incentives for milk production; and (3) a Dairy Promotion Program, which was intended to increase consumption of dairy products. In 1985, the Congress took additional steps to deal with the dairy surplus problem by authorizing a Dairy Termination Program and further price support cuts. The termination program was intended to reduce milk production by paying farmers to export or slaughter their entire herds. By 1988, surpluses had decreased from the 1983 peak of 16.6 billion pounds to about 9.7 billion pounds, or by 42 percent.

USDA disposes of most surplus dairy purchases through donations to foreign and domestic nutrition programs. One of these programs, the National School Lunch Program, was created in 1946 to safeguard the health and nutrition of the Nation's children and encourage domestic consumption of agricultural products. To meet these objectives, USDA's Food and Nutrition Service encourages the implementation of food service programs in elementary and secondary schools. FNS subsidizes school lunches in the form of cash payments and donated commodities—known as entitlement commodities—purchased under USDA's price support programs. In addition to entitlement commodities schools can also receive bonus commodities. These do not count against a school's total cash and commodity subsidy and, if available, can be ordered in any quantities that can be used. Because of the large inventories of dairy products purchased under the price support program, most of the dairy donations were provided as bonus commodities during the 1980's.

TRENDS IN DONATED DAIRY PRODUCTS

Between 1978 and 1987, the total quantities of dairy products donated to the School Lunch Program rose from about 141 million pounds to 275 million pounds. Of the three types of donated dairy products, cheese increased most significantly from about 60 million pounds in 1978 to 165 million pounds in 1987. The growth in overall dairy donations took place during a time of extremely large dairy surpluses created through CCC purchases under the price support program. By 1989, the quantities of dairy products donated to the School Lunch Program decreased to about 208 million pounds. This decrease is partly a consequence of the success in reducing surplus purchases.

During the 1980's the quantities of dairy products offered to schools as bonus commodities grew significantly. In fact, from 1982 through 1988, virtually all dairy donations were distributed as bonus rather than entitlement commodities. Thus, schools could obtain large quantities of these products without charging them against their cash and commodity school lunch subsidy. In 1989, the availability of bonus cheese and nonfat dry milk commodities declined, and FNS officials told us that by 1990 these products will be offered only as entitlement commodities. This is important to school districts because the cheese and nonfat dry milk that were once "free" as bonus commodities must now be charged against their school lunch subsidy or purchased commercially.

IMPACTS OF DECLINES IN DONATED DAIRY PRODUCTS

To obtain a perspective on how reductions in bonus dairy products have affected school lunch programs, we talked to officials from 20 States who were responsible for distributing donated products to school districts. Our questions focused on (1) how declines in bonus dairy commodities affected the nutritional value of meals served at school, (2) what actions school districts have taken to deal with such declines, and (3) what actions school districts plan to take to deal with the declines.

Eleven of the officials said that the reductions in bonus commodities had neither a positive nor a negative effect on the nutritional value of school lunches served. For example, eight officials noted that regardless of the availability of federally donated dairy products, schools are required to serve nutritionally balanced meals as a condition for participating in the School Lunch Program. Only five officials said that the decline in dairy donations had negatively affected the nutritional value of school lunches. Their concerns stemmed from possible declines in the calcium and protein that dairy products provide.

The most common action taken in response to decreased dairy donations was to reduce either the quantities of dairy products used in school lunches or how often they were served. Thirteen State officials said that their school districts had taken such actions, but most classified the reductions, at worst, as moderate. In addition, eight indicated that school districts had purchased additional dairy products with State or local funds in order to compensate for decreases in dairy donations. Only two State officials told us that some schools had increased the price of student lunches. However, 14 State officials estimated that school lunch prices will be raised next year to purchase additional dairy products. Estimates of the increases ranged from 5 to 25 cents.

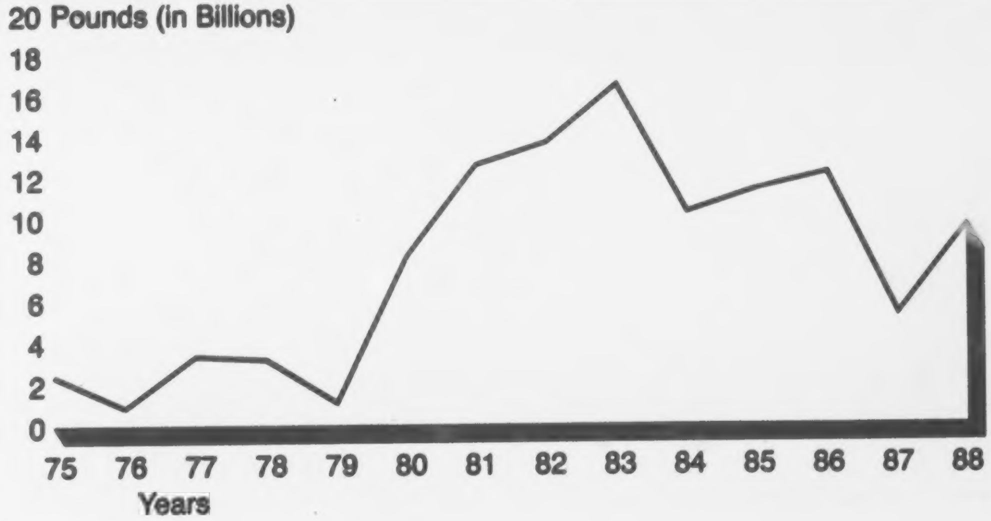
DAIRY PRODUCTS NEEDED FOR THE SCHOOL LUNCH PROGRAM

It is difficult to estimate the quantities and types of dairy products needed for the School Lunch Program because of problems in defining dairy needs. An examination of historical trends in the quantities of dairy products used in the School Lunch Program may or may not reflect such needs. These trends may reflect availability of dairy products rather than need—the more that was available, the more that was used. In an attempt to develop an acceptable definition of dairy needs from a nutritional perspective, we spoke with health and nutrition experts at the National Institutes of Health, Food and Nutrition Service, and National Academy of Sciences. These experts noted that many variables can affect the minimum amounts of specific dairy products necessary for a nutritionally sound diet and, consequently, it would be difficult if not impossible to develop an estimate. For example, an official from the National Academy of Sciences noted that the need for dairy products would have to be viewed in the context of the total diet. Therefore, a large number of assumptions would have to be made about what quantities and types of foods were being consumed outside the School Lunch Program. Additionally, a National Institutes of Health official noted that the recommended dietary allowances of nutrients for individuals can vary by sex, age, and amount of physical activity.

Mr. Chairman, this concludes my prepared statement. I will be pleased to answer any questions you may have.

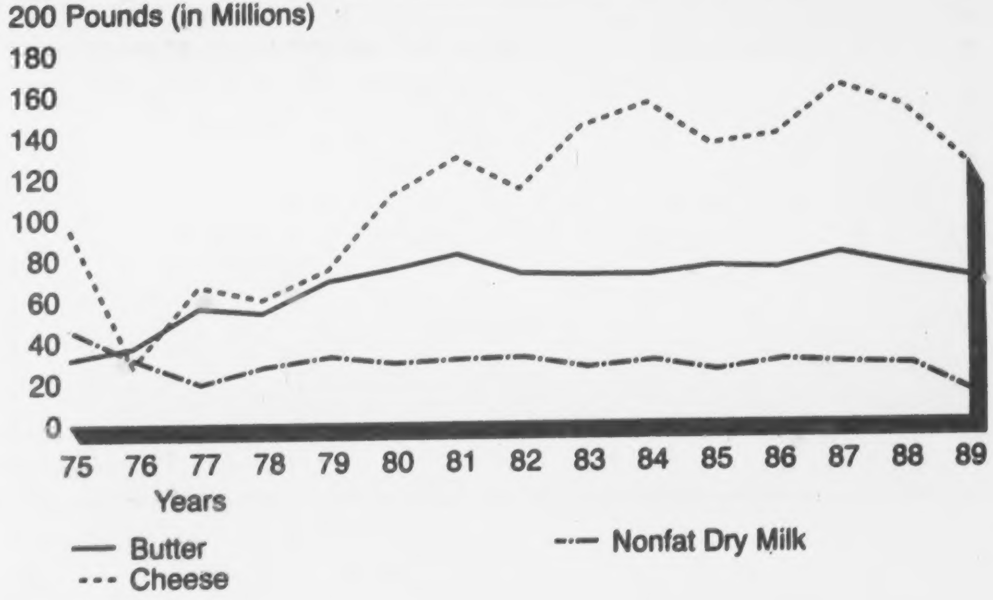
[Charts follow:]

GAO CCC Surplus Purchases (Dairy)



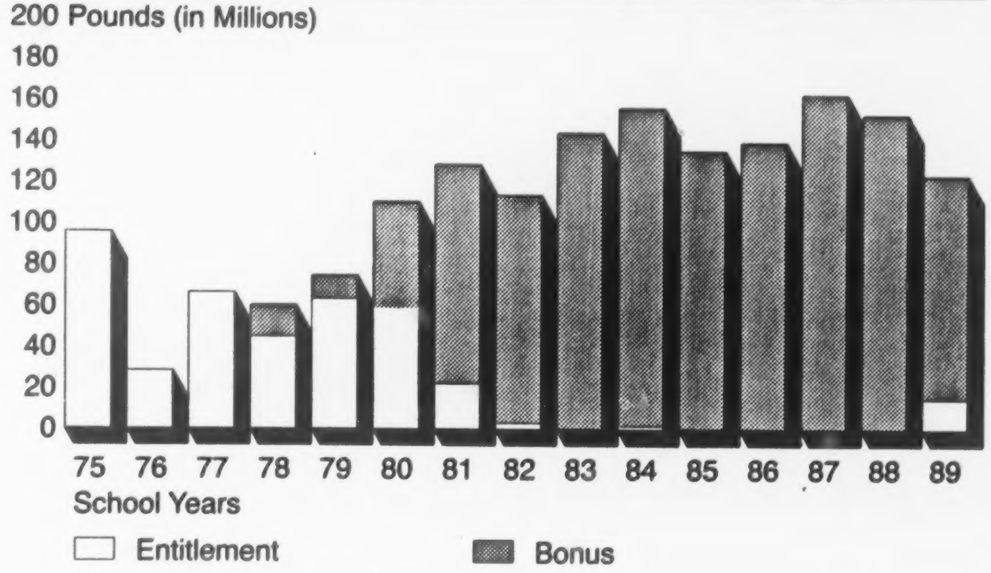
GAO

Dairy Donations to the School Lunch Program (Bonus and Entitlement)



GAO

Cheese Donations to the School Lunch Program (Bonus Vs. Entitlement)



PREPARED STATEMENT OF CAROLYN A. BROWN, CHILD NUTRITION SECTION, MANAGEMENT EFFECTIVENESS SECTION, MANAGER, CHILD NUTRITION FOOD PROGRAM, MINNESOTA DEPARTMENT OF EDUCATION, ST. PAUL, MN

Mr. Chairman, members of the committee, I am Carolyn Brown, Manager of the Child Nutrition Food Program for the Minnesota Department of Education. I am privileged to work with approximately 475 child care centers and 12 organizations sponsoring over 9,000 family day care homes in Minnesota. Through these organizations, over 60,000 Minnesota children receive nutritious meals each day.

I express my appreciation to each of you and all of the committee members and staff as you struggle together to better provide for the needs of our Nation's children. Your interest in hearing from those of us administering various nutrition programs at the State and local levels demonstrates that you see this as a cooperative venture.

In Minnesota, the Department of Education, Child Nutrition Section administers all of the USDA Child Nutrition Programs (National School Lunch, School Breakfast, Special Milk, Summer Food Service and Child Care Food Program), as well as the Food Distribution Program. The clients we serve as Child Care Food Program participants vary from adult day care centers to Head Start programs, for-profit and nonprofit child care centers and family day care homes.

Minnesota has over 1,000 licensed child care centers and roughly 11,800 licensed family day care homes. Approximately 475 of the centers and 9,800 of the family day care homes participate in the Child Care Food Program.

During Federal fiscal year 1988, $27.7 million were returned to the State through the Child Care Food Program to reimburse centers and homes for meals served to children and for training and monitoring the program on the State and local level.

The strength of the Child Care Food Program in Minnesota is derived from a community value or belief in quality child care standards and from the support mechanisms built into the Child Care Food Program regulations.

Minnesota has a reputation for establishing quality child care standards going back to 1956. The belief that centers and family day care homes must provide quality care for our children led to the development of standards of care and the current State licensing system. Many State agencies must cooperate in order to maintain this system.

The Child Care Food Program was first envisioned by Congress as a 1968 addition to the National School Lunch Act called section 13. As it evolved, the USDA regulations governing the program specified outreach, education and monitoring; established standards; and finally, provided reimbursement for meals meeting those standards.

These requirements form the outline of a "feed forward" "feed back" information loop that demands interaction between players. For example, reimbursement is paid to a provider only after review of menus shows that the meals served to children met an established standard previously communicated. The level of success the provider has in meeting the standard becomes an evaluation of the training she/he has received. This program model fits well with Minnesota's reputation for quality child care standards.

I would like to review several points about the Child Care Food Program and its relationship to child care.

—Family day care homes are a major component of our Nation's day care delivery system.

The August 1988 Abt Study of the Child Care Food Program (CCFP) describes family day care and documents how it differs from center-based care:

"Family day care is an arrangement in which an individual cares for a small number of children in her home. Family day care providers offer flexible hours of care and are often available on weekends and evenings. Family day care homes (FDCH's) provide a great deal of part-time care. Some homes provide overnight care for children of parents working night nursing or factory shifts. Most providers adjust their fees for parents with low-incomes or large families. Only 10 percent of family day care providers receive child care payments from sources other than parent fees.

"Family day care provides child care to meet the work schedules of the families they serve. The FDCH's in the CCFP are open an average of 11.5 hours each day. Almost 20 percent are open more than 12 hours, and 4 percent are open 24 hours. While 82 percent operate 5 days a week, 17 percent are open 6 days, and 10 percent are open 7 days. This contrasts sharply with the schedule in child care centers, which rarely provide care on nights or weekends" (pp. 88–90).

Family day care homes are a major provider of child care in the United States, caring for more than 50 percent of children that are in out-of-home care. Family day care homes also provide care for a large number of infants and toddlers, as well as school-age children.

According to the 1988 Abt Study, a substantial number of CCFP participating family day care homes provide care for infants and toddlers, unlike most centers. "Three-quarters of FDCH's serve toddlers . . . More than one-third (39 percent) serve infants and over half (57 percent) serve school-age children" (p. 92).

"Family day care provides 'work-related' day care so that families using FDCH's can become or remain employed. Ninety percent of mothers of children in participating FDCH's are employed, while 69 percent of mothers of children in Head Start and 27 percent of the mothers of children in non-Head Start centers are *unemployed*" (p. 67).

—The Child Care Food Program is the only Federal program which establishes nutrition standards for meals served to preschool children in family day care.

Major studies substantiate the fact that children enrolled in programs participating in the CCFP, regardless of where they live or the family income, significantly benefit nutritionally. The 1983 Abt Study indicated quite clearly that the CCFP was providing nutritious meals to children receiving child care and was improving the quality of their diets (p. 3; 1983 Abt; *Evaluation of the Child Care Food Program).*

According to this study, a comparison between participating and nonparticipating programs revealed that participating programs: (1) served more meals and snacks; (2) provided snacks which were significantly better balanced; (3) served significantly more of the naturally high quality nutrient-source foods; (4) served milk more often at meals and snacks; and (5) served concentrated sweets 33 percent *less* often than nonparticipating programs (pp. 11–12).

—The Child Care Food Program is the only Federal program which provides direct support and protection to children and families served by family day care providers.

A major national issue that has recently emerged is the protection of children when they are in child care programs while parents are working. The 1988 Abt Study points out that the majority of family day care is still "underground" and not meeting any standards of care. However, all children enrolled in CCFP participating homes benefit from the protection of in-home monitoring and the standards these homes must meet to participate.

While the CCFP mandates three monitoring visits per year, the 1988 Abt Study points out "on average, sponsors visit homes approximately *eight* times per year, with an average visit lasting 48 minutes. Typically, these visits combine the monitoring function with training and technical assistance to provider" (p. 49). Only 12 States have licensing standards which require more than once a year visits to family day care homes. The quality of care children receive is directly related to the training received that providers receive training on a regular, ongoing basis. The 1986, 30 States had no training requirements for family day care providers. The 1988 Abt Study documents this about CCFP training:

"Although nearly 90 percent of sponsors offer inservice training at separate training sessions, sponsors typically combine the monitoring function with training and technical assistance to their providers. Seventy-nine percent of FDCH sponsors provide inservice during regular home visits. Many sponsors indicated that while separate training sessions are offered, providers are often unable to attend these sessions and as a result, most of the training and technical assistance received by many providers is obtained during home visits" (p. 162).

The CCFP is the *one* program that reaches out and assists family day care providers in meeting regulations, and in providing continuous training, intervention, and monitoring throughout the time that the providers are enrolled. The CCFP, particularly in FDCH's, is a critical element in our efforts to protect and assure the continued health and safety of our Nation's children.

—The Child Care Food Program has been the single most important factor to which the increase in the numbers of regulated family day care homes can be attributed.

In *Making Child Care Work*, a Minnesota Council on Children, Youth and Families report to the 1987 Minnesota Legislature, family day care providers report that the major reason they chose to become licensed was to qualify for the Child Care Food Program (CCFP).

The CCFP has been a primary facilitator in creating several hundred thousand newly regulated family day care slots for our Nation's children. Estimates of these new slots in the approximately 73,000 family day care providers who were either not operating or not regulated prior to their participation in the CCFP, range from 200,000 to 500,000. These providers now operate legitimate businesses and pay their share of local, State and Federal taxes while providing critically needed child care services. The children in these FDCH's are in the care of providers who are now receiving training, monitoring and in-home visitation, and who are meeting the nutrition standards set forth in the program.

As the 1988 Abt Study delineates, "To participate in the CCFP, family day care homes meet State licensing requirements where these are imposed, or be approved by a State or local agency. In addition, they must be sponsored by an organization that will assume responsibility for ensuring compliance with Federal and State regulations and that will act as a conduit for meal service reimbursements to family day care providers. This administrative structure reflects an understanding of the great differences between centers and homes in terms of organization and structure, and in particular, of the personal and informal nature of family day care" (p. 1). Networks of multiservice organizations have grown as a result of their participation in the CCFP as sponsors of family day care homes. Families now have access to child care resource and referral systems, and providers have access to a multitude of services. The 1988 Abt Study documents some of the services provided by sponsoring organizations to family day care homes and the children and families they serve. The major ones are: referrals for social or health services (58.8 percent), training (93.9 percent), placement or referral of children to homes (46.3 percent), and parent activities or educational programs (40.5 percent) (p. 399).

—The Child Care Food Program must reach our Nation's low-income children.

The Abt data in the 1988 Study of the Child Care Food Program (CCFP) shows that between 81–84 percent of family day care homes are unregulated (p. 90). If we assume that the average number of children per home is 6.6 (1988 Abt Study, p. 93), then nearly 3.1 million children are in unregulated family day care homes.

In 1981, the CCFP was serving 79,920 low-income children, and in 1986, 115,130. While this was a significant increase in the actual numbers of low-income children served, it is not significant when viewed as the percent of total children served.

The 1975 National Child Care Consumer Survey (conducted for the Administration for Children, Youth and Families, USDHHS) found that, of low-income children in out-of-home care, three of four were found in family day care, largely unregulated. Following that study, the CCFP was expanded to include children in family day care homes and contained a means test in an effort to target it to low-income children. However, participation was low and criticism was directed at the program because it was not reaching children in family day care homes. In 1980, a flat rate of reimbursement was established, with the intent to expand participation among family day care homes (1988 Abt Study, p. 17).

It has been proven by past experience that "means testing" did not increase the number of low-income children served by the CCFP in family day care. Previous participation data substantiate this. In child care centers, the number of low-income children served has been relatively stable since 1981. Therefore, to increase the number of low-income children served, the program must be adjusted in other ways.

The single most important factor in reaching more low-income children is expanding the CCFP to child care facilities now providing unregulated child care. This will require cooperative efforts by the local, State and Federal child care communities to: (1) begin to establish Federal, State or local child care standards where none currently exist and (2) identify mechanisms for encouraging unregulated child care providers to become part of the regulated child care delivery system.

As in the early 1940's, we are in a child care crisis. The child care guarantee in welfare reform implementation is just ahead, and the existing child care systems will be challenged to provide the needed child care, while maintaining the quality of care. The following suggestions are presented for your consideration:

—Launch extensive national public awareness efforts, particularly in low-income areas and promote outreach activities at the national, State and local levels. The availability of the CCFP and its benefits to children must be part of that effort.

—Continue to improve the nutritional integrity of meals served to our Nation's children by including all four meals currently served in child care facilities as meals that are eligible for CCFP reimbursement. The Abt Study documents that children are in center-based care an average of 7.6 hours each day, which are open an average of 10.3 hours; while children are in family day care homes an average of 7.3 hours each day, which are open an average of 11.5 hours (1988 Abt Study—pages 46, 90, and 121). Also, nearly 32 percent of the children in family day care are under 2 years of age and need meals more frequently than older children.

This data points to expanding the fourth meal service to include family day care homes.

—Reduce recordkeeping requirements for both sponsors and providers, while maintaining program integrity. The Hunger Prevention Act CCFP demonstration project in Minnesota implemented the CCFP provision that reimbursement be available for a fourth meal served to an enrolled child in care for 8 or more hours a day in advance of the rest of the Nation for child care centers and as a demonstration for family day care. This length of time in care requirement has placed an additional recordkeeping burden on all involved. Because this documentation must take place and be checked each month to verify the eligibility of meals served to each child, the likelihood of human error and resulting audit findings increases greatly. Legislative change could allow child care facilities open for 8 or more hours to be reimbursed for a fourth meal service. This would greatly reduce the paperwork of daily documenting each child's time of arrival and departure.

—Update center program eligibility requirements for institutions organized as proprietary (for-profit) child care centers. Proprietary centers may participate only if 25 percent of their enrolled children are title XX funded. Many of these centers now serving low-income children are unable to offer CCFP benefits to the children because of the lack of available title XX funds, even though they are serving low-income children funded under other programs. Enactment of the Family Support Act of 1988 will enlarge this problem, as programs move to providing care for low-income children funded through this new Federal mechanism.

In summary, the Child Care Food Program is working well in Minnesota. However, I am concerned about the continuing availability of the program for all our Nation's children. As one who administers this program at the State level, I often hear how programs affect the lives of children and their families. On behalf of the thousands of children served in the Child Care Food Program, I commend your committee for your constant support of valued Child Nutrition Programs. Thank you for allowing me this time today.

[The statistical tables and prepared statements follow:]

HUNGER PREVENTION ACT OF 1988 CCFP DEMONSTRATION PROJECT-MINNESOTA
CHILD CARE CENTERS SUMMARY

	11/88	12/88	1/89	2/89	3/89	Estimate 4/89
Total Number Participating in CCFP	181	180	179	183	181	170
Number of Centers	417	414	409	415	415	396
Average Daily Attendance	12,686	11,902	12,311	12,411	12,708	12,610
Sponsors in Demo Project (Percent)	10 (6%)	10 (6%)	17 (9%)	20 (11%)	21 (12%)	20 (12%)
Number of Centers (Percent)	11 (2.7%)	11 (2.7%)	18 (4.4%)	21 (5.1%)	22 (5.3%)	22 (5.5%)
Average Daily Attendance in Demo Centers	426	396	700	889	1,320	1,429
Total Number Supplements Claimed	169,327	150,218	168,315	165,269	188,068	168,332
Number of Supplements Claimed as 4th Meal (% of Supplements)	4,457 (2.6%)	4,227 (2.8%)	5,943 (3.5%)	8,565 (5.2%)	11,603 (6.2%)	10,272 (6.1%)
Total Number of Suppers Claimed	1,323	1,228	1,346	1,047	1,533	1,519
Number of Suppers Claimed as 4th Meal (% of Suppers)	35 (2.6%)	76 (6.2%)	2 (.15%)	5 (.48%)	10 (.65%)	12 (.79%)
Additional Dollars	$489.02	$520.39	$774.66	$1,038.44	$1,758.21	$1,639.07
Average Additional Per Center Due to Demo	$44.46	$47.31	$43.04	$49.45	$79.92	$74.50

06/89
DRAFT

HUNGER PREVENTION ACT OF 1988 CCFP DEMONSTRATION PROJECT-MINNESOTA
FAMILY DAY CARE HOME SUMMARY

	11/88	12/88	1/89	2/89	3/89	Estimate 4/89
Total Number of Homes Participating in CCFP	8,274	8,334	8,524	8,667	8,775	8,769
Number Participating in Demo Project	2,599	3,276	3,779	3,853	4,034	4,048
(Participating)	(31%)	(39%)	(44%)	(44%)	(46%)	(46%)
Total Number Children Enrolled	73,465	73,636	75,204	76,323	79,147	78,855
Number Children Enrolled in Demo Providers Homes	19,075	26,935	27,735	32,613	30,960	29,520
Total Number Breakfasts Claimed	750,814	731,340	790,866	749,529	874,511	800,427
Number of Breakfasts Claimed as 4th Meal	9,473	11,392	11,968	11,160	12,599	11,296
(% of Breakfasts)	(1.3%)	(1.6%)	(1.5%)	(1.5%)	(1.4%)	(1.4%)
Total Number Lunches Claimed	805,567	794,128	849,600	810,113	959,862	866,474
Number of Lunches Claimed as 4th Meal	269	512	527	516	1,021	628
(% of Lunches)	(.03%)	(.06%)	(.06%)	(.06%)	(.11%)	(.07%)
Total Number Supplements Claimed	1,170,921	1,176,759	1,298,646	1,237,901	1,454,512	1,336,599
Total Number Supplements Claimed as 4th Meal	144,229	187,468	215,018	212,232	263,970	235,128
(% of Supplements)	(12.3%)	(15.9%)	(16.6%)	(17.1%)	(18.1%)	(17.6%)
Total Number Suppers Claimed	84,618	85,544	90,566	85,688	98,264	91,137
Total Number Suppers Claimed as 4th Meal	9,576	14,164	17,554	18,601	22,357	22,005
(% of Suppers)	(11.3%)	(16.6%)	(19.4%)	(21.7%)	(22.8%)	(24.1%)
Additional Dollars	$ 72,379.29	95,817.68	110,729.30	110,449.76	136,019.60	123,473.09
Average Additional Dollars Per Home Due to Demo	$ 27.85	29.25	29.30	28.57	33.72	30.5

[illegible]
DRAFT

Pool

Minnesota Licensed Family Child Care Association
Suite 103 • 1910 West County Road B • Roseville, MN 55113
(612) 636-1989 • 1-800-652-9704

As a professional licensed family child care provider and as president of Minnesota Licensed Family Child Care Association I want to thank the distinguished members of the Sub-committee on Nutrition for giving me the opportunity to distribute information on the Child Care Food Program of Minnesota.

The Child Care Food Program has helped me as a provider offer nutritious meals to the children in my care. I am not only able to offer nutritious meals, but develop educational curriculum to create better eating patterns for the children and increase their knowledge of the food group. This material is also available for the parents, which in return creates an on going education of nutritional growth.

Many working families rely on their licensed provider to provide the nutritional foods because of their time line. We know then that the children of providers that participate on the Child Care Food Program are contributing to balanced, nutritional and developmental growth which are crucial stages for children.

The Child Care Food Program helps providers offer the nutritious meals, and snacks to the children in the family child care homes. It is an important part of the business that many family child care providers perform to maintain quality care at affordable prices. Without the Child Care Food Program the expense would be assumed by parents or the provider causing both parent and provider additional stress.

The Child Care Food Program is a major factor for licensing, it makes the difference in whether the family child care home continues to operate. An average family child care home of six preschoolers spends approximately $310.00 per month on nutritional foods. We are reimbursed from the Child Care Food Program and average of $265.00 to $300.00 allowing very minimal to be taken from our weekly income.

In the early part of the 1980's the elimination of the means test for children being cared for by licensed homes was the result of 90% of Minnesota 13,000 licensed homes participation in Child Care Food Program.

Providers usually supply 2/3 of a child's daily nutritional needs. With the elimination of the Means Test and allowing the Child Care Food Program reimbursement for these meals allows no expense to be added on to the parent or the parent bringing a cold lunch every day for their child.

By reinstating a Means Test this will increase the cost of the child care, close quality homes, increase unregulated homes, deprive and decrease the nutritional meals available to all children. Participation of all children in a child care home insures higher quality meals and greater variety due to adherence to Child Care Food Program requirements. This in turn helps children to develop healthy eating habits that will last a life time. Providers are themselves frequently low income workers. About 35% of Family Child Care Home Providers have an annual income of under $20.000, 17% obtain their entire income for child care solely. The Means Test that is upon the licensed provider where she or he is not allowed to claim their own children is a concern to rural providers. On Minnesota Licensed Family Child Care Food Program only 14% of the providers enrolled are able to claim their own children. Of these 14% single parent providers, rural providers, is there an increase in the child care income or spouses income? The need to be able to claim providers children has many concerns and views that need to be heard.

The Child Care Food Program provides many important aspects, ones that the providers feel are necessary are nutritional education, monitoring and technical assistance that the Child Care Food Program offers throughout the year of enrollment.

The Child Care Food Program providers these crucial portion of the program by visiting the homes at least 3 times each year, during meal and snack times as well as unannounced visits. Programs offer educational materials through the workshops designed by a Nutrition Director and through newsletters as well as curriculum designed to implement into a family child care home. This helps to support and encourage high quality programs offered to providers for quality child care homes.

The number of homes participating on the Child Care Food Program are increasing since policies for the program have been modified to help encourage providers participation. Yet there is a special needs and demand for continuous Technical Assistance, nutritional advancement and special outreach in rural areas that are isolated or more costly to administer. Funding needs to be continued and increased for these areas to insure nutritional, educational and high quality child care so all the needs of the children are being met.

The economic necessity has created families to have two wage incomes, creating children to be cared for with long hours. This results in 45% of our children in care have 2/3 to 3/4 of their nutritional need meet outside of their own home. By reinstating to the Child Care Food Program the additional meal and snack option this has allowed providers to continue to offer the high quality nutritional foods at all meals and snacks. The additional insensitive of this demonstration project for Minnesota has eliminated a barrier that often occurs in family child care, when children are arriving at 6:30 am and leaving at 6:30 pm. Minnesota Licensed Family Child Care Food Program presently has 47% that have chosen to participate in this demonstration project. With a random survey the providers that have chosen to participate have 8-10 children in care over 8 hours and do care for 10-12 hours. Of the providers that have chosen not to participate, express the concern of the additional paper work and only for 1 or 2 children that they could claim the extra monies is minimal the Hunger Prevention Act of 1988 to reinstate the addition meal and snack with Minnesota as the Demonstration Project state over all is showing a positive effective with a higher percentage of low income families served by In Home Licensed Family Child Care Providers with long hours. We are able to guaranty quality nutrition in the early stages of life. It has created additional administrative cost for the factor not only has the provider seen the increase of paper work, so has the Child Care Food Program Sponsors. With additional funds made available for the next step to include additional monies for administrative expense, the program will be even more effective.

A major important issue has risen form this demonstration project. Providers whom are having children 24 hours or over are disallowed those meals served to the children. This has caused concern form providers and child care food program staff.

The Child Care Food Program is a system that enhances many providers to remain affordable and in the profession of child care. Without the Child Care Food Program many providers would be forced to raise their rates close their business. The Child Care Food Program is a critical part of making the child care profession a quality program for today and the future.

STATEMENT ON THE REAUTHORIZATION OF THE SPECIAL SUPPLEMENTAL FOOD PROGRAM FOR WOMEN, INFANTS AND CHILDREN

BEFORE THE

SENATE SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS

June 14, 1989

Dr. Victor W. Sidel
Distinguished University Professor
of Social Medicine, Montefiore Medical
Center and Albert Einstein College of Medicine,
Bronx, NY

Mr. Chairman and Subcommittee members, thank you for inviting me here today to join you in these important hearings on the reauthorization of the WIC Program.

For identification, I am Distinguished University Professor of Social Medicine at Montefiore Medical Center and the Albert Einstein College of Medicine in the Bronx, New York and a past president of the American Public Health Association and Physicians for Social Responsibility. I have long been interested in the problems of hunger in the Unied States, serving as a member of the Physicians Task Force on Hunger in America and as the principal investigator for New York State Hunger Watch. I am currently the chair of the Technical Advisory Committee for the Community Childhood Hunger Identification Project (CCHIP), sponsored by the Food Research and Action Center (FRAC).

I think it's important to begin by understanding the reasons why the WIC Program was developed in the first place. During the 1960s, the American people and their representatives in Congress were shocked to learn that there were many families going hungry in this wealthy nation. In order to ameliorate the hunger problems that were uncovered during those years, the School Lunch Program was significantlyexpanded, and the School Breakfast Program, the Food Stamp Program and the Child Care and Summer Food Programs were implemented.

During this same period, concerned physicians began to discuss publicly the widespread problem of poor nutrition among child-bearing women and young children and its negative effects on pregnancy and the health of children. Dr. H. Jack Geiger of the Mound Bayou Community Health Center sponsored by the Office of Economic Opportunity and others expressed the need to "prescribe" food as well as medicine and other forms of health care. Out of those early recommendations and concerns grew the Special Supplemental Food Program for Women, Infants and Children, or WIC.

Evaluations of the program since its implementation have consistently demonstrated that WIC is one of the most successful federal programs at accomplishing what Congress intended it to do -- prevent health problems and improve the health status of low-income pregnant, postpartum and breast-feeding women, infants and young children at nutritional risk.

WIC has been shown to increase early enrollment in prenatal health care, to decrease the rate of preterm delivery, to significantlyreduce late fetal deaths, to significantlyincrease birthweight, and to reduce neonatal mortality. The program improves the nutritional intake of pregnant women, infants and children. Participation in WIC improves the cognitive skills of young children, and improves their chances for having a regular source of medical care and thorough immunization. WIC also has been shown to save money by reducing the need to hospitalize low birthweight babies.

Considering that WIC is so very successful, it seems shameful that only about fiftypercent of the women, infants and children who are estimated to be eligible for the program are actually able to be served. In fact, it is startling to realize that in some states the percentage of eligible women, infants and children participating in WIC is significantlyless than half. We are currently reaching very small percentages of young children who are eligible for WIC, and there are many postpartum women who do not receive WIC benefits even though they are eligible. We are better at reaching pregnant women and infants, but even in the case of these two groups, there are still significant numbers that are not participating in spite of need and desire.

The Ford Foundation has stated in a recent report on The Common Good: Social Welfare and the American Future: "The payoff of WIC services seems clear, but our commitment to the program has been feeble." While I commend this subcommittee and the larger Senate Agriculture Committee for your continuing support of the WIC Program, I would have to agree with the distinguished Executive Panel which wrote this report for the Ford Foundation that we do indeed look "feeble" as a nation in our efforts to meet the needs of mothers and children, especially when we compare ourselves to the other industrialized nations. These nations, with the exception of South Africa, generally have a wide range of exceptional maternal and child health programs and programs that help families with nutrition and other financial and health problems. We just don't help our mothers and children to the same extent, or to the extent we should, given our resources and the good will of our people.

One aspect of WIC that I would like to particularly highlight today is the importance of promoting breastfeeding as the most desirable choice for WIC mothers and infants. Some WIC programs encourage breastfeeding; others do little in this area. Breastfeeding has great advantages for both the mother and the baby -- it is the best possible nutrition for the child, balanced by nature to meet the child's needs; it decreases the chances of infection, milk intolerance, allergies and other GI disturbances; and, it helps the mother establish a bond to the infant, improving her skills as a nurturing mother -- an important advantage, especially for low-income women.

Despite these advantages, most WIC women do not breastfeed. Increasing the incidence of breastfeeding among WIC women continues to be an untapped avenue of improving the health of WIC mothers and babies while saving money for WIC so that more people can be served. We need to increase the rate of breastfeeding to more closely equal the breastfeeding rate of all other infants in the U.S. Therefore, I strongly encourage you to designate funds in WIC specifically for encouraging and supporting breastfeeding among WIC mothers.

Many of the nutritional and health problems that mothers and infants in this country face are a result of poverty. WIC cannot by itself solve the problem of poverty. Women and children also need ways out of poverty -- such as good job training, availability of jobs that pay adequate wages, quality day care, and accessible health care. However, WIC does much to shield poor women, infants and children from some of the health problems that result from poverty. And, even if poverty were largely solved as a problem in this country, there would still be reasons to have WIC, to ensure that during critical growth periods the nutritional needs of women, infants and children are specifically met.

In this great nation of ours with so much to offer its people, a nation that annually allocates so many billions to its military, surely we should be able to invest relatively modest amounts of money in true security for our people -- in ensuring that vulnerable women and children are properly fed and receive adequate health care. I respectfully urge the members of this subcommittee to do everything you can to ensure that the benefits of WIC are made available to all eligible women, infants and children, as soon as is possible.

PREPARED STATEMENT OF JONATHAN B. KOTCH, ASSOCIATE PROFESSOR, SCHOOL OF PUBLIC HEALTH, DEPARTMENT OF MATERNAL AND CHILD HEALTH, THE UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL, NC

Mr. Chairman and members of the committee, my name is Jonathan Kotch. I am a pediatrician also certified in preventive medicine, and I am an Associate Professor of Maternal and Child Health at the University of North Carolina's School of Public Health.

When I was a pediatric resident at Montefiore Hospital Medical Center, where my colleague and friend, Dr. Victor Sidel, who is also testifying today, is Professor of Social Medicine, it was my privilege to join a health care team at the Martin Luther King, Jr., Neighborhood Health Center in the South Bronx. I was incredulous at the time to discover that some of my patients were getting their well baby care at a hospital out-patient clinic rather than at our community-based local health center, one of the first Office of Economic Opportunity neighborhood health centers the country. I couldn't believe that they were giving away free infant formula just to attract people into the clinic.

That was 1974, during the introduction of WIC pilot programs. It wasn't until 2 years later, when I went to the University of North Carolina to study public health, that I found out what WIC was. In the 15 years that have passed since my introduction to WIC in the South Bronx, the program has grown to serve nearly 20 times the number it served that first year. The members of this committee may be proud of the role they have played in protecting WIC from the draconian cuts experienced by other important health and nutrition programs. Nevertheless, only half of the eligible women, infants and children in this country are being served, and the population which is least well served, let me emphasize, is children between the ages of 1 and 5.

Part of the reason for the rapid drop-off in participation rates from infancy, when they are highest (87 percent), to the preschool period of life, when they are lowest (38 percent), is those Federal regulations which reward WIC agencies for preferentially serving clients in higher priority categories, namely, pregnant women and infants with nutrition-related risk conditions. These regulations are a response to resource limitations created by that administration which then used these resource limitations to justify the regulations. Let me point out that such a strategy, which targets resources, however limited, to a population already demonstrating signs of ill health, is not always in the public interest, nor is it necessarily good public health. The first principle of public health is prevention, and primary prevention requires that services be provided before the first sign of a problem. I believe that the original intent of WIC was primary prevention, but in the interest of saving money in the short run, the program as administered today rewards agencies which serve individuals who already have anemia, short stature, or other nutrition-related conditions. The social cost of the missed opportunity to prevent these nutrition-related conditions in the first place can only be imagined.

I am also concerned with the consequences of denying WIC to older preschool children, as is the case in those States where age cut-offs below the fifth birthday have been imposed. I have to ask, and I ask you, "What happens to the benefits enjoyed by WIC participants in their earliest years, should WIC be arbitrarily cut off at the third or fourth birthday?" Would the cognitive gains which have been suggested by national studies, let alone the reductions in anemia and the improvements in nutritional intake and in access to preventive health care, persist? The members of this committee, aware as you are of the relationship between poverty and ill health, would probably join me in predicting that such improvements would not, in fact, be sustained in the critical years before school entry. I would like to take this opportunity to mention to the committee that I was the director of a Food and Nutrition Service-funded project which recently released a proposed design for a definitive study of the effects of WIC on preschool children. Until such a study is done, it would be premature to cut off WIC before our children reach school, where they may be eligible for continuing nutritional services under School Feeding Programs.

The same national studies which show increased utilization of preventive health services among children on WIC also demonstrate higher rates of receipt of adequate prenatal care among pregnant women on WIC. Let me conclude, therefore, with an observation about the crucial role of WIC in improving birth outcomes in this country. Just as my infant patients were running (figuratively speaking) down the block to get their free formula and well baby care at Bronx Lebanon Hospital 15 years ago, so too pregnant women all over the country who are participating in WIC are receiving prenatal care at the same time as they are returning to clinics for their WIC vouchers and nutrition education. That WIC was created as an adjunct to health care was a master stroke of public policy, one that is a necessary building block of another desirable public policy initiative, universal access to maternity care. In 1982, when the National Association for Public Health Policy's Council on Maternal and Child Health, of which I am chair, first called for universal maternity care, we would not have predicted that, by the end of a decade characterized by retrenchment in most social programs, such prestigious groups as the National Commission for the Prevention of Infant Mortality, the American Academy of Pediatrics, and the Ford Foundation, to name but three, would join us. In order for universal maternity care to become a reality, WIC must also be universally accessible to all eligible women, and for the benefits to be sustained over time, WIC must continue to serve eligible infants and children, hopefully until school age. Therefore, I urge this committee to support, not only full funding for WIC, but mandatory eligibility up to 185 percent of the U.S. Poverty Income Guidelines. Finally, I would remind the committee of the continuing need for a nationally representative study of the effect of WIC on older infants and children, and I would hope that full funding for WIC would include adequate funding for such a study.

Thank you for the opportunity to address you today. I would also like to thank Noah B. Kotch, the word processor for the first draft of this statement.

PREPARED STATEMENT OF ELLEN B. THOMPSON, NATIONAL ASSOCIATION OF STATE NET PROGRAM COORDINATORS AND SOCIETY FOR NUTRITION EDUCATION, BURLINGTON, VT

Mr. Chairman and members of the subcommittee, I am Ellen Thompson, Public Health Nutrition Chief with the Vermont Department of Health. I am here today speaking on behalf of the National Association of State NET Program Coordinators (NASNET), and the Society for Nutrition Education (SNE). These organizations have made the continuation of the Nutrition Education and Training (NET) program one of their highest priorities.

Thank you for the opportunity to appear before your committee to testify on behalf of these organizations and the many individuals participating and benefiting from the NET program. We appreciate the leadership which this committee has given to nutrition programs over the years. We know that you understand that education is a vital component of the Child Nutrition Programs.

This past February the National Education Association (NEA) released a report prepared by the Food Research and Action Center (FRAC) called *The Relationship Between Nutrition and Learning*. In the introduction the President of NEA said, and I quote, "Growing numbers of our students are coming to school burdened with disadvantages. More are poor and, because of poverty, more are ill-fed. To help these students succeed in school, we must not only have high academic standards, but we must deal with the students' needs." Children cannot learn if they are malnourished or hungry. The NEA report cites research indicating that hunger leads to nervousness, irritability and disinterest; that skipping breakfast can cause nausea, dizziness, headache and fatigue and the hungry child is passive, apathetic and timid. You should know that hunger and malnutrition is not limited to poor children, but occurs in economically advantaged homes as well. In our "fast-moving" society today there are kids who are hungry or malnourished because there is simply no time in their parents day for grocery shopping and food preparation. There are elementary school aged "latchkey kids" responsible for meal preparation for their entire family. There are children whose breakfast consists of what they can grab from the counter or refrigerator as they go out the door to school and, there are 10-year-olds, so weight conscious they skip meals and choose diets too low in calories for proper growth.

For the last 10 years, the NET Program has attempted to address these matters with education programs and materials for teachers, school food service workers and others. The NET Program needs your help. This vital, cost-effective health promotion program was targeted for elimination in President Reagan's FY 1990 budget and it is not clear what effect President Bush's freeze on child nutrition programs will mean for NET. Without Federal reauthorization and funding, NET will cease to exist in most States. This loss varies from $456,000 for California to $50,000 for Vermont and approximately half of all the States in this country which are minimum grant States.

This possible end of the NET Program comes at a time when the Surgeon General of the United States has said "Educating the public about the dietary choices most conducive to prevention and control of certain chronic diseases is essential. Educational efforts should begin in primary school and continue throughout the secondary grades . . ." Five of the leading 10 causes of death and disability in this country have been linked to dietary practices. Recommendations from the National Cholesterol Education Program stated that we must begin with school age children.

The NET Program is equipped to educate our children, teachers and food service personnel as well as parents about nutrition. NET is a family nutrition education program. The NET Program came into existence in 1977 as an amendment to the Child Nutrition Act of 1966 (Public Law 95-166). The goals of the program as established by law include: (1) teaching children about nutrition and its relationship to health; (2) training school food service personnel in the principles and practices of food service management; (3) instructing teachers in sound principles of nutrition education; and (4) developing and using classroom materials and curricula.

NET funds have been used to:

- Produce specialized nutrition materials and educational programs for handicapped individuals, pregnant teens, student athletes and coaches;
- develop curriculum for use by schools;
- support school wellness projects;
- fund special demonstration projects;
- support lending libraries;
- purchase instructional materials; and
- train school food service workers, teachers and parents.

NET programs throughout the country have shown remarkably impressive accomplishments despite limited funding:

- the highly acclaimed California "Choose Well-Be-Well" nutrition education curriculum guide is now used worldwide;
- the television series "High Feather" developed in New York State won an Emmy award; and
- the Pennsylvania School Breakfast Campaign especially targeting "high-risk" is youth destined to become a national model.

State evaluations from across the country have shown a significant improvement in knowledge, attitudes, and nutritional practices of children, teachers, and school food service personnel as a result of NET activities. In Ohio, 70 percent of the teachers indicated that the "Ohio Integrated Nutrition Activities Process Model," developed with NET funds, helped them to teach students to know and eat a variety of foods. In Texas, 17 of 23 formal evaluations of nutrition knowledge, attitudes, and behavior were significantly positive, and none were negative. Many States can provide similar statistics, though formal evaluation has been severely curtailed due to reductions in funding.

A 1985 investigation into the effectiveness of nutrition education, conducted by the University of Minnesota for the National Dairy Council and published by the Society for Nutrition Education, found that nutrition education results in a marked increase in knowledge in nutrition; that it results in some increase in positiveness of attitudes toward eating well; and, participants' patterns of food consumption are improved. Thus, this study confirmed what we in the NET Program have demonstrated time and again, that nutrition education works!

These successes notwithstanding, there is still much to be done. Because of decreased funding in recent years, we have been unable to reach large segments of the school population. The original NET funding, established at a level of $26 million nationwide, provided States with 50 cents per child per year. In FY 1980 funding dropped to $20 million; in FY 1981 it dropped to $15 million; and in FY 1982 it was reduced to its present level of $5 million. As a result, the program now reaches only 85,000 teachers, 67,000 food service personnel, and 2.2 million students as compared to the 211,000 teachers, 103,000 food service personnel, and 5.6 million students reached with the original funding level.

The public's interest and concern regarding the nutritional quality of school meals cannot be overlooked. Now more than ever, our schools need the NET Program to provide leadership and training for school food service personnel to use commodities appropriately, to reduce the fat and sodium in meals, to increase fiber, and to promote wellness to the students, their parents and their teachers. The program needs to be expanded so that *all* children receive its benefits.

Many States are finding it difficult to continue to meet the needs of the students, teachers and school food service personnel at the current $5 million funding level. Many of the college-level nutrition courses for school food service personnel and teachers have been discontinued, training programs have been cut back, mass media nutrition education programs for students have been curtailed or eliminated. Staff time has been reduced and purchase of instructional and reference materials delayed.

Nutrition is a dynamic science, as such there is a continual need to upgrade and revise nutrition education programs. Much of the curricula, training manuals and other resources developed or purchased by NET are now out-of-date. These materials need to reflect current scientific knowledge regarding the relationship of diet to disease, trends in health status and newer methods. New materials must be developed to meet emerging needs.

If reauthorization were to include increased funding of $5 million for each of the next 4 years, the funding level of NET would approach its original funding level by FY 1992. With an increase of $5 million, State NET programs could revise their food service training curriculums, many of which are now 8 years old; update their audiovisual lending libraries, which are used by both teachers and food service personnel; and expand the number of workshops for teachers.

An increase of $10 million would allow NET to reinstate some of the college-level nutrition courses for teachers it once was able to offer at local school sites. The number of mini grants for classroom based nutrition education projects could be tripled from its current level. Nutrition curricula for the preschool and/or elementary school levels would be revised to reflect the current knowledge of the scientific and educational communities regarding nutrition, knowledge that has changed significantly in the past decade.

Funds were cut back in NET before many States could develop, reprint or purchase nutrition curriculums for the secondary school level and for students with special needs. With $25 million the NET Program could provide schools with up-to-date nutrition curricula for preschool to grade 12. Graduate level nutrition and nutrition education methods courses for teachers could be restored, thus improving ties with the land-grant universities. Integrated training programs for teachers and food service personnel to make the cafeteria and classroom partners in nutrition education would be expanded. The links between NET and both the Child Care Feeding Program and the Summer Food Service Program would be increased. Four to five times as many participants would be reached with this additional funding.

The NET Program would be further strengthened by the inclusion of provisions calling for technical assistance from USDA on nutrition education methods and needs assessment, and a biennial National Conference for NET Coordinators.

A systematic approach to the review of the NET Program is needed to identify the best methods to reach specific target audiences; the best ways to link USDA Child Nutrition Programs to community nutrition education programs; evaluation and monitoring of NET activities and barriers that impede program operations at Federal, State, and local levels.

National conferences for NET Coordinators provide States the opportunity to share their resources, thus avoiding a duplication of effort and materials. These meetings also provide a forum to discuss methodology and current research as it pertains to nutrition education. At a minimum, NET Coordinators should have the opportunity to meet biennially. It has been 9 years since such an opportunity was provided.

We ask that you support the reauthorization of the NET Program and that you consider a gradual increase in funds, over the next 5 years, restoring NET to its original funding level. These additional funds would ultimately result in a cost savings. Health care costs will decrease as healthy food habits are established with your support, NET can continue to be a source of nutrition information for our Nation's children. Thank you for your time and concern.

REAUTHORIZATION OF WIC AND CHILD NUTRITION LEGISLATION

THURSDAY, JUNE 15, 1989

U.S. SENATE,
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS OF THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m., in room SR-332, Russell Senate Office Building, Hon. Tom Harkin (chairman of the subcommittee) presiding.

Present or submitting a statement: Senator Harkin.

STATEMENT OF HON. TOM HARKIN, A U.S. SENATOR FROM IOWA

Senator HARKIN. The Subcommittee on Nutrition and Investigations will come to order.

Today we will review USDA Special Supplemental Food Program for Women, Infants and Children, the WIC Program, and child nutrition. Since today's session is a resumption of the hearing began yesterday, I will not have an opening statement. I will note, however, that today's witnesses primarily address the WIC Program.

We have quite a few witnesses today, and since we want to allow time for some additional discussion with the witnesses, I have asked that each witness limit his or her oral presentation to about 5 minutes. Now, obviously your entire prepared statement will be made a part of the record so if you could limit to about 5 minutes each, that will give us some time for discussion. I would like to have you come up and just take these seats as a group.

The first group would consist of Loren Bell, president of the National Association of WIC Directors; Dennis Bach from Iowa; Richard Blount from Missouri; and Minda Lazarov from Tennessee.

Mr. Bell, Dennis, Richard Blount, good to see you, and Minda Lazarov, did I pronounce that correctly?

Ms. LAZAROV. Yes, you did.

Senator HARKIN. Thank you. Welcome to the subcommittee and, Mr. Bell, we will recognize you first and summarize your testimony, please.

STATEMENT OF LOREN BELL, PRESIDENT, NATIONAL ASSOCIATION OF WIC DIRECTORS, OLYMPIA, WA

Mr. BELL. Thank you, sir. I will summarize my prepared testimony.

I would like to make a note that my testimony refers to some attachments that are somewhere between Minneapolis and Baltimore on Northwest Airlines.

Senator **Harkin**. All right.

Mr. **Bell**. So those will be presented to the subcommittee. The text of my testimony is there, but not the attachments.

Senator **Harkin**. Where is your luggage?

Mr. **Bell**. Well, part of it is here.

Senator **Harkin**. The rest is in Brussels, right?

Mr. **Bell**. Or in London or some place.

I would like to thank the subcommittee for the opportunity to testify today, and particularly thank the committee for its support of the WIC Program over the years.

It is a great encouragement to us in the field that are administering WIC Programs to know that we have this kind of support, and it really helps us in the day-to-day task for jobs.

I have two points I would like to make real quickly before I go into the specific questions that were addressed in the letter.

PROGRAM COULD BE MADE BETTER BY BEING MADE SIMPLER

First, the National Association of WIC Directors takes the position that we feel the program can be made better by being made simpler; that the program is extremely complex, and that we have presented legislative proposals that we feel will be to the overall benefit of the client in the program.

OUR CHOICE IS TO SERVE THE CLIENT RATHER THAN TO SERVE PAPERWORK

Our choice is to serve the client rather than to serve paperwork. The type of client that we see in the WIC Programs nowadays is a far more complex client than we saw several years ago. Many of these clients are homeless. They have hunger problems. We deal with the problem of child abuse, substance abuse, AIDS, many more complex problems.

We are asking to have more time to deal with these clients, to help refer them to appropriate sources and to deal with the complexities of their nutrition rather than to fill out forms and document contacts.

Second, I know that many groups during a period of reauthorization come before the committees asking for specific items for specific interest groups. We are guilty of that as well. However, we would hope that the committees, when they look at all the proposals in front of them, will consider that with a caps program, if you look toward providing services to one interest group, you must take another interest group off the program.

We would hope that the committee would view all pregnant women, infants and children below 185 percent of poverty with the nutritional risk as being our clients. We should equally serve all these clients rather than selecting out specific groups that would receive preferred services under WIC.

Now, I would like to take a few moments to comment on some of the issues that were presented.

PARTICIPATION LEVELS

First, in terms of participation levels, I think you heard yesterday that the administration is putting forward some figures related to the number of high risk clients being served. Yet, we find that less than one-half of the clients eligible for this program are not being served across this country. In addition, we find that 62 percent of eligible children are not being served. The impacts on these children are significant.

THE BENEFITS OF WIC CAN BE LOST IF WE ARE FORCED TO CUT CHILDREN OFF AT AN EARLY AGE FROM THIS PROGRAM

We noted in the national WIC evaluation that benefits to children are in terms of their cognitive development. I myself have a disabled daughter, and I know that during this time period of critical growth and development that nutrition is extremely important. The benefits of WIC can be lost if we are forced to cut children off at an early age from this program and not allow them to receive the benefits. I hope that the committee will consider in terms of participation that is important not only from a preventive standpoint but from a moral standpoint, that we provide all the help we can with these children who will be our future leaders and our future adult citizens.

COST CONTAINMENT

The second area relates to cost containment, and for most of this I will defer to my colleague, Mr. Blount, who chaired our task force on cost containment. But I would like to make two quick points.

INFANT FORMULA COST CONTAINMENT

One is that no other issue is confounding State WIC Directors more than infant formula cost containment. The complexity of current regulations are such that it makes it almost impossible to figure out from day to day how much caseload to add, how much money to convert, how much infant formula rebate money you will be getting, and what inflation effects are on your program. Simplification of this process is necessary.

REBATES ON OTHER FOOD PRODUCTS

Second, there has been an issue raised about rebates on other food products. I would suggest that infant formula provided us with a unique opportunity. Two companies control 90 percent of the market share, and their pricing structure has been horizontal. That is, they all had about the same price and it all went up the same way.

With our other products, we have a wide variety of vertical pricing. Cereals, for example, can cost from an insignificant amount from a grocery store generic to a higher cost product put out by a company.

If we were to request rebates on these, as a study we did in Washington State indicated, at best, our market leverage could get us the same prices that a moderately large chain store in Washington State could get the products for. We could still buy the products off the shelf at a major national chain cheaper than we could if we were to go out for competitive bid.

We would hope that you would consider this when you are looking at cost containment.

We feel that, under the current system, we have flexibility with the vertical pricing structure to eliminate high priced foods and control our costs by using generics, by using low cost items and have a variety of selection.

THE FOODS THAT WE PROVIDE MUST BE ACCEPTABLE TO THE CLIENT

The one final point. The foods that we provide must be acceptable to the client. The cheapest way to provide a food package would be to provide all powdered milk. Yet, we know that when that occurs, the clients generally do not use that, and the donations of powdered milk to local food banks increase significantly.

BREASTFEEDING PROMOTION

The third area I would like to comment on is breastfeeding promotion. The National Association of WIC Directors currently supports increased breastfeeding, and breastfeeding as the preferred method of infant feeding. We are publishing a position paper on this, and will provide the committee with a copy of it. And in our legislative proposal we are requesting that funding be made available to the States to help them consolidate and better promote breastfeeding efforts among our populations.

NEW PRODUCTS BY CARNATION

In addition, we were asked to comment on new products by Carnation. Many States have not made decisions on those products yet, and are waiting for several issues to be resolved. So, at this point, we do not have any specific data related to Carnation nor can judge its impact on the infant formula.

THE NUTRITIONAL WIC HEALTH ASSESSMENT AND NUTRITIONAL RISK CRITERIA

The fourth area, the comment is on the nutritional WIC health assessment and nutritional risk criteria. There seems to be a trend on the part of the administration to require States to standardize nutritional risk criteria. My testimony goes into some length but, yesterday, I noted that there was two points that needed to be asked the Department.

One point is how many woman, infants and children are put on this program with nutritional risk criteria that they feel are inappropriate?

Second, would these clients be eligible anyway under other appropriate nutritional risk criteria? I don't think that there would be a significant increase. In fact, the cap of this program is on income, not on nutritional risk. So you do not increase the number of potential eligible clients simply by liberalizing your nutritional risk criteria because income provides that cap.

THE WIC FOOD PACKAGE

The fifth area I was asked to discuss is the WIC food package, and there was much discussion yesterday regarding the addition of meat to the WIC food package.

The National Association supports a revisit of the current food package, but we would like to look at the entire food package and put together all the information in current studies related to the best nutritional benefit for our clients.

ONE COMMENT ABOUT VENDOR ABUSE

And, finally, one comment about vendor abuse. There was a national OIG audit that contended that there was much vendor abuse in this country. I was a vendor coordinator in California before I moved to Washington to be WIC Director. We know that there are problems with vendors. But the answer to this is not to simply change the systems we use to detect problem vendors. The answer is to hold us accountable for not having these problem vendors and developing appropriate systems for each State that can detect high abuse vendors.

What is appropriate in California, where I had significant problems, is not appropriate in Washington State, where most of my clients go to major chain stores, which even the Department will admit are not a significant problem.

To require a State like Washington to train all its vendors annually only keeps honest grocers honest and provides information to dishonest grocers on how to beat the system.

I would suggest that we take great care when we proceed in the area of vendor abuse to make sure we know exactly what we are talking about and have systems that can meet the State's needs and not systems that merely change the process, not make it better.

THE WIC PROGRAM WORKS

Finally, the WIC Program works. We all know that. And we are certainly in support of the WIC Program expansion. We hope that this committee will consider the points made by our association with regard to making it a better program as well as a larger program.

Thank you.

[The prepared statement and attachments of Mr. Bell appear at the conclusion of the hearing.]

Senator HARKIN. Thank you very much, Mr. Bell. The next speaker is Dennis Bach from the State of Iowa.

STATEMENT OF DENNIS H. BACH, DIRECTOR, IOWA WIC PROGRAM, IOWA DEPARTMENT OF PUBLIC HEALTH, DES MOINES, IA

Mr. BACH. Thank you.

THANKS

Senator Harkin, as the WIC Director from your home State of Iowa, I would also like to thank you for the opportunity to be here.

And on behalf of the Department, I would like to thank you for the leadership that you have shown in the area of public health and nutrition, particularly nutrition for children. Hope you keep it up for many years to come.

Rather than address all the points in my written testimony, I would like to highlight just a couple of issues from there.

WIC HAS THE GREATEST IMPACT ON THOSE AT GREATEST RISK

There has been considerable effort in recent years to ensure that benefits are targeted toward those participants at the greatest risk, primarily pregnant women and infants. And research studies have shown that WIC has the greatest impact on those at greatest risk.

PRIORITY SYSTEM

There was some criticism of the priority system during yesterday's testimony, but if you cannot serve all the population, it is necessary to have something like that. However, an infant who turns a year old and is then called a child does not automatically cease being at a risk.

If the WIC formula has been successful in identifying a pregnant woman and serving her, serving that infant, either by encouraging the mother to breastfeed or by providing infant formula, by the time that infant turns a year old, you should not find an overt medical problem. However, that child is still at risk, and under our current priority system would be placed in one of the lowest priority categories. If there is insufficient funding to serve the entire population, that 1-year old child probably would not receive services in a lot of States.

At that stage in life, that infant or that child continues to need the iron-rich food that the WIC Program provides, they need to continue having the professional nutritional counseling from WIC nutritionists, and they need the encouragement for health care that WIC provides.

WIC IS A SUPPORT SYSTEM FOR YOUNG, FRAGILE FAMILIES

I have made a point before that WIC is more than just the supplemental foods, nutrition education, the encouragement for health services. It is a support system for young, fragile families. And there is a synergistic effect between the three services. All the different research studies that have been done have indicated that WIC is effective, but none of them have singled out any individual components; it has been the combined effect of the three different components that resulted in our effectiveness.

CONCERN ABOUT SOME NUTRITIONAL RISK CRITERIA THAT STATES HAVE USED

Recently, USDA has expressed concern about some nutritional risk criteria that States have used. And they seem to be implying that we should only use risk conditions that can be cured by WIC foods. And that concern, I think, misses the point.

WIC is more effective as a preventive health program than as a remedial one. And we should be concerned with identifying and serving populations at risk of developing health problems, not just those that already have medical problems.

WIC IS INTENDED TO SERVE AS AN ADJUNCT TO ROUTINE PEDIATRIC AND OBSTETRICAL HEALTH CARE

On another issue, WIC is intended to serve as an adjunct to routine pediatric and obstetrical health care. You could change that to read "local health care" without changing the way that WIC operates in most States.

The structure of the program, and the health care standards which are followed, very considerably from State to State. That is not a criticism but simply an example of the program's uniqueness.

In Iowa, for example, one of our priorities over the last several years has been to integrate WIC services with local maternal and child health services. A patient can come in and receive a child health exam with hearing and vision screening, a dental exam, nutrition counseling, and WIC food checks, and not have to be concerned about the fact that there are two different federally funded programs providing that combination of services. We think in Iowa that is a most effective way for WIC to operate. And I believe you have been to some of those combined clinics before.

That is not necessarily the way WIC is structured in other States, and would not necessarily be the appropriate way for another State to structure, but it is the way that is most effective in Iowa.

Because of that local integration, it is critically important that, at the State level, WIC and maternal and child health coordinate their health care standards and their guidelines for the provision of services. It would be very difficult to try and legislate or regulate uniform national standards of care or risk criteria that would allow the flexibility that different States need to meet with their individual needs.

There are focus on management standards for nutrition services and for caseload management that address some issues of quality in relation to the health assessment. And I believe that this approach, which is setting mutually determined standards with some Federal oversight, makes a lot more sense than trying to legislate or regulate those standards.

CONTENT OF A FOOD PACKAGE

One other issue that I would like to address just briefly has to do with the content of a food package. I also do not know the difference between heme iron and other kinds of iron. I just know that iron is important in food packages.

The original food package that was developed in 1972 was based on food consumption data from the mid 1960's, and with very limited changes such as the addition of dried beans and peanut butter, the WIC food package now is pretty much what it was when the program started. One of the things that we have been working on in the last 2 years in Iowa is a new validated diet assessment tool. As part of the development of that, we did some research on more recent food consumption data. There is some evidence that the nutrients that the current WIC food package tries to provide are not necessarily the same nutrients that that population is lacking in their diets.

I cannot go into the specifics in great detail, but we have identified iron, zinc, folacin, magnesium, calcium, and vitamins A and B6, which are probably deficient in the diet. The current WIC food package does not try to provide all those nutrients.

We believe that there needs to be an examination of the content of the WIC food package, and in conversations with people from USDA, they have expressed some interest in doing that as well.

We think that sort of study needs to be done before any unilateral changes are made to substitute one item for another within the WIC food package.

In addition to looking at the nutrients that are provided, I think we need to look at the management implications of changing some of the foods. There has been a suggestion that we add ground beef, for example, in lieu of eggs or cereal. But there is no standardization to the packaging labeling of meats. And if we think we have a problem with compliance by retail vendors now, it would increase dramatically if we tried to provide something like a package of ground meat.

And with the exception of eggs, most WIC food is ready to eat. They do not require any cooking facilities. They can be consumed by an individual person in the family. It seems rather difficult to provide something like a pound of meat and ensure that, over the course of a month, it would be a WIC participant who is consuming that item. We also need to look at the cost implications of the substitution.

So I think there is a need to look at that issue, but I think it is a complex issue, and something we should not do hastily.

I think I will limit my remarks to those specific issues so that we have more time for questions after we get done.

Again, thank you for the opportunity.

[The prepared statement of Mr. Bach appears at the conclusion of the hearing.]

Senator HARKIN. OK. Thank you very much, Dennis.

Our next witness, Richard Blount, is from Missouri.

STATEMENT OF C. RICHARD BLOUNT, MANAGER, SECTION OF FOOD AND NUTRITION SERVICES, MISSOURI DEPARTMENT OF HEALTH, JEFFERSON CITY, MO

Mr. BLOUNT. Mr. Chairman, I do appreciate the opportunity to be here today, also your leadership.

I consider myself a passionate man. As you said yesterday, you also appreciate passion. I almost, after 13 years in the WIC Program, would like to preach today. But I think it is inappropriate. So you must forgive me if I fall back into that mode.

Senator HARKIN. OK. Go right ahead.

Mr. BLOUNT. They are limiting are going to limit me to talk about two or three things; rightly so, because of time constraints. I, too, tried to answer all the questions of the committee in my written statement in detail, and would be glad to speak on anything that you want to know about it.

LOOKING AT THE INFANT FORMULA COST CONTAINMENT

My particular role today, I think, can better be served, however, by looking at the infant formula cost containment, which Loren referred to, since I chaired that task force on behalf of the NAWD.

I am proud to say that infant formula cost containment was a WIC director initiative. It started some 4 years ago because of WIC directors own feeling of stewardship of the Federal moneys that you give us. And what was happening (infant formula increases) was taking away the opportunity to expand the program. It has been a very successful cost containment program. I am happy to share that there are 42 States of the geographic States that are in the program today. About half of those participating are on what we referred to as the open market, which I referred to in my prepared statement; about half of them are on the competitive market with some few exceptions: home delivery, one State commodity program, and two or three other combinations which were previously mentioned.

Other States that are not now in the program will be in the program by the end of the fiscal year, I believe. It has produced some very valuable resources.

OPEN MARKET IN MISSOURI

In my own State, if I may use that as an example, we went into the open market in July last year. We had at that time a participation of about 63,000 participants a month. When I left home yesterday, we were serving 78,000. About 14,000 people came into Missouri's program based on the $8.3 million that we anticipated we will get back during the fiscal year. That is good, and it is happening all across the country. I could say "amen" to that if I were getting back into the preaching mode, and I know you would too, Senator.

But such rebates do not come without problems. So let me speak to the problems.

AN ERROR THAT INFANT FORMULA REBATE CAN BECOME A SUBSTITUTE FOR THE SOLID FEDERAL AND STATE APPROPRIATIONS

I think that if we are not careful, we can make an error in judgment, believing that the infant formula rebate can become a substitute for the solid Federal appropriation and some State appropriation.

If you look at what we gain from rebates plus what some have talked about, regarding Federal funding including the current budget resolution of $150 million new funding, and if that increase were to become a budget resolution for a mandatory increase over the next 5 years, then with the increased Federal appropriation, plus rebates, we would still, at the end of the 5 years, have 1½ million—it depends on how you base potential need—unserved people. Thus you need both the infant formula cost containment and solid Federal increases each year during the time of reauthorization.

Again, when I look at Missouri; we, using that infant formula rebate with an increase of some 14,000 participants, are still serving only 58 percent of the prenatal high risk and breastfeeding women in Missouri. We are doing better in the high risk infant area because we are able to bring them in as infants of the high risk mother. We are serving approximately 89 percent of the infant potential need, which is higher than most States across the country.

But when you move beyond that and start getting into some of the other categories, you also will notice that Missouri is only serving about 30 percent of its children. So it is not a matter of having used the rebate moneys that we have saturated the market and its normal need. It simply is inadequate and will remain inadequate.

QUESTION ON COMPROMISE IN THE PROGRAM BECAUSE OF FUNDING

One of the questions that came to us in your committee letter was whether or not there may be some compromise in the program because of funding, because we can only serve such high priorities. I think that any time we are not serving the people who Congress intended for eligibility there is a compromised program. To serve *only* about one out of three children who would be eligible for the program, and serve *only* less than 6 percent of the post partum, nonbreastfeeding women, the program is compromised at those particular points.

NEED FEDERAL AND STATE FUNDING AND INFANT FORMULA REBATES

So I rest the case that we need both the Federal funding, as well as State funding where it is available, and we need the infant formula rebates. The infant formula cost containment also has brought some administrative problems. Those are addressed in my prepared statement, and I would not try to get into the details of them here.

USDA HAS TRIED TO DEAL WITH THE 80-20 SPLIT IN FUNDING

USDA has tried to deal with the 80-20 split in funding. They have looked at keeping the infant formula rebate as separate conversion moneys. When you start making too much of a definitive categorical separation of those funds, you run into difficulties even for USDA as well as for the States. I would hope that the committee in their wisdom would address the administrative distribution of funds in the things that might be looked at.

MISSOURI STUDY ON MEDICAID COST BENEFIT

Let me move on more quickly. The last time I was before you, Senator, I spoke of the Missouri study on Medicaid cost benefit, and was very happy to share with you that we found in our study in 1984 that we saved 49 cents on every $1 spent for the prenatal woman as compared to medical costs within the first 45 days.

We did another study in 1986. I am very pleased to announce that the study, yet to be published, documents that savings now have gone up to 79 cents for every $1 spent. That is based on Medicaid payments alone within the first 60 days after birth. If you look at Medicaid billing, which means some hospital, somebody, somewhere has absorbed the rest of the cost, it is documented that we actually save $1.97 for every $1 spent.

VENDOR MONITORING

The other thing I would share with you in closing, is comments on the recent national USDA vendor monitoring since my State was one of the States that was audited in the national USDA vendor monitoring. I can share from the audit findings in my State, based on an audit of the city of St. Louis WIC Program, with all the metropolitan problems.

I was alarmed one day when I had a staff person from the Hill, fortunately not from your staff, call me and say "Dick, tell me what is going in St. Louis that you have not been telling me." I said, "What do you mean, what are you talking about?" I learned that this staff person had been led to believe by the auditor's interpretation given of the vendor audit that there were hundreds of thousands of dollars program abuse in the City of St. Louis that I had not shared with them. That unfounded allegation compromised not only my personal integrity, but compromised the integrity of the program unjustly and unnecessarily.

I went back and pulled the audit and sent that audit forward to the staff person asking the question. The actual audit in the City of St. Louis included 18 high risk WIC vendors, selected by USDA for audit. Based on their compliance buys in those vendor places, using 54 vouchers for compliance buys the audit report showed that we had a total overclaim of $84.70 out of that group of high risk vendors, and we had $12 and some odd cents underclaims reported.

So when I was able to say to the staff person from on the Hill it was not hundreds of thousands of dollars, but it was actually less than $100, I felt better about my integrity; but, more importantly, I felt that the integrity of a very fine program was put back in perspective.

Senator, I thank you for the privilege of being with you.

[The executive summary and prepared statement of Mr. Blount appear at the conclusion of the hearing.]

Senator HARKIN. Thank you very much, Richard, for the fine testimony.

Minda Lazarov, welcome to the committee.

STATEMENT OF MINDA LAZAROV, DIRECTOR, TENNESSEE BREASTFEEDING PROMOTION PROJECT, TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT, BUREAU OF HEALTH SERVICES, NASHVILLE, TN

Ms. LAZAROV. Thank you, Senator Harkin. I really appreciate this opportunity to address you today regarding the reauthorization of the WIC Program.

BACKGROUND AND EXPERIENCE

As a WIC nutritionist for the past 11 years on both the local and State levels in Tennessee, I can speak from firsthand experience that WIC works.

Currently, I am Director of the Tennessee Breastfeeding Promotion Project, and Chair of the National Committee on Improving Breastfeeding Promotion Strategies in the WIC Program. I am here today to address the need for designated funds for breastfeeding promotion in the WIC Program. And hopefully address the newer questions that you asked yesterday.

TWO WAYS TO FEED A BABY

There are two ways to feed a baby: breastfeeding and formula feeding. Despite the fact that virtually all health authorities agree that breastfeeding is the preferred method of infant feeding, the WIC Program puts nearly all of its infant feeding resources into formula feeding. USDA estimates that in 1988 over $500 million was spent on infant formula in WIC.

WIC WOMEN BREASTFEED AT A RATE NEARLY HALF THAT OF OTHER AMERICAN WOMEN

WIC women breastfeed at a rate nearly half that of other American women; the rate of breastfeeding among WIC women has remained low year after year after year, while the majority of middle and upper income women are choosing to breastfeed their babies.

Numerous studies have been done to identify the reasons for this discrepancy. These investigations reveal there are several sociological and psychological barriers to breastfeeding that these women must overcome before they feel comfortable in making a truly informed choice about how they feed their baby.

COMMON PROFILE OF THE PREGNANT WIC PARTICIPANT

The common profile of the pregnant WIC participant can be described as follows: she says she wants to do what is best for her baby and, in fact, know the breast is best. But she chooses formula feeding instead. Why? She does not want to be tied down. She is afraid that breastfeeding may spoil her baby. She feels very uncomfortable about nursing in public, and sometimes this includes in the living room. She is unaware that she can breastfeed after returning to work, and she just feels uncomfortable with the whole idea.

Now, once in the hospital, she will probably be given little, if any assistance for initiating breastfeeding and be sent home with free formula.

AFFLUENT MOTHER

In contrast, the affluent mother has a keener understanding of the importance of nurturing her new baby and, therefore, is committed to breastfeeding as the first step in fostering trust and self-esteem in her child. She has friends who have breastfed and, therefore, has the confidence that she can do it successfully. She has a supportive husband. She knows that if she returns to work, she can still breastfeed, and cherishes the opportunity to be able to keep that special closeness.

EFFECTIVE STRATEGIES FOR OVERCOMING THESE BARRIERS

USDA and the Department of Health and Human Services have invested more than $6 million to determine effective strategies for overcoming these barriers. These studies have found that when thoughtful, coordinated efforts are made to inform and support pregnant and breastfeeding mothers, more women choose to breastfeed and to breastfeed longer.

And I have seen such an effort in Tennessee, in an area that is primarily a black rural county in Fayette County, southwest Tennessee near Memphis. This is an area where the rates of breastfeeding are among the lowest in the country, where there was virtually no support for breastfeeding in the community or in the health care sector. You know, I have had the opportunity in this project to sit beside these women and see what works. And what we have seen is that you can double the rate of breastfeeding in a year and a half. That is what we have done in this project.

In addition, an interesting observation I have made in this project is the marked increase in self-esteem among the WIC mothers who have made this hard decision to breastfeed. This improved self-esteem translates to greater self-motivation for improving their own health and the health of their family. They have just, in general, become more receptive to the nutrition education and to the parenting skills that are being provided by the other programs in the Health Department.

TIME FOR WIC TO IMPLEMENT THE FINDINGS FROM THESE STUDIES AND RESPONSIBLY ADDRESS THE NUTRITION NEEDS OF WIC INFANTS

I know we can make a difference if given adequate resources. It is time for WIC to implement the findings from these studies and responsibly address the nutrition needs of WIC infants.

The National Committee on Improving Breastfeeding Promotion Strategies in the WIC Program, which is an organization of over 25 professional, Government and food advocacy groups, have proposed designating funds for breastfeeding in the WIC reauthorization. We recommend an annual funding level of $10 per pregnant and breastfeeding WIC woman, or about $8 million nationally. This amount is only 3 percent of the dollars that is projected to be spent on infant formula next year.

This investment will most likely over the long run save money. For example, in 1988, a breast-fed baby in the Tennessee WIC Program costs $30 less to feed in the first month of life than a formula fed baby. From this, we estimated that nationally in 1988, at least $30 million was spent to purchase formula for WIC babies for just the first month of life. Even after the savings from the current larger infant formula rebates of 1989 are considered, in the long run, breastfeeding is still cheaper than formula feeding. In addition, we do not know how long the WIC Program will benefit from the infant formula rebates. Should that rug be pulled out from under us, we need to be prepared with other cost containment systems that we can count on in the long run, and I really believe breastfeeding has that potential.

Increased rates of breastfeeding among WIC moms and infants could result in significant savings for other Federal programs as well. Decrease hospital costs and pediatric visits from gastrointestinal infections, ear infections, formula intolerance, baby bottle tooth decay could make millions of Medicaid dollars available for other greatly needed services.

With these potential sources of cost containment for both the WIC Program and Medicaid and the documented benefits for the recipients, I urge you to consider $8 million annually in the WIC reauthorization. It is really a bargain.

BREASTFEEDING IS BETTER FOR INFANTS

In conclusion, breastfeeding is better for infants for its nutritional, immunological, anti-allergenic, and emotional benefits.

Breastfeeding is better for parents as it fosters a more nurturing relationship with the infant, and helps establish a stronger sense of responsibility for the health of their family.

Breastfeeding is better for the WIC Program as it is cheaper than infant formula and can provide a simple long-term mechanism for cost containment.

It is time for breastfeeding to really become the preferred food delivery system for WIC infants.

Thank you, Senator Harkin.

[The prepared statement, list of organizations on the National Committee on Improving Promotion Strategies in the WIC Program, references, tables, and article, "Cost of Breastfeeding Promotion Programs: Three Models" of Ms. Lazarov appear at the conclusion of the hearing.]

Senator HARKIN. Thank you very much, Minda.

I appreciate the testimony of each of you.

Did you see this? Was this in the paper today? I will be darned, its in the Wall Street Journal, today.

Mr. BLOUNT. Yes.

Senator HARKIN. I have not read it yet. Gerber has set a rare move on formula ads. What are they saying? Are they going to start advertising?

Mr. BLOUNT. Maybe you are seeing something different than I. When I said "yes," I thought I saw one where we were having more competition.

Mr. BACH. That was yesterday's paper. Today's is different.

Mr. BLOUNT. I would be happy for the Senator to read to me before I say "yes." [Laughter.]

Senator HARKIN. The opening line is this, "In its bids to attract the $1.6 billion infant formula market, Gerber Products Company is teaming up with Bristol-Myers, an entrenched industry player, in planning a controversial marketing tact that will involve direct advertising to parents."

I would not comment on a joint initiative which is expected to be announced today at a news conference in New York. Unorthodox television and print campaign. Persons aware of the planned TV spots said they began by extolling the virtues of breastfeeding as the best option. Next they informed mothers that if they cannot or choose not to breastfeed, there is a new formula. There you go.

Well, what can be done? We know it is better. We know it is cheaper. We know all those things.

Now, what are we going to do about all this advertising they are going to come out with now that it is going to be targeted at these very same people? Anybody? Minda, what do you think we ought to do?

Ms. Lazarov. Well, I think we definitely have to put a stop to this practice. I mean we have seen Carnation and Nestle use this practice. It is something that is new in the United States, and I think particularly for low-income women, it has the potential for really having a major impact on our efforts. And we certainly do not know because the practice has not been in place in the United States for very long. But we can anticipate since these women are particularly receptive to advertising, this kind of advertising, that it will have an impact.

There are a couple of efforts underway to establish a campaign for breastfeeding in this country and in the Southeast. But we certainly do not have the dollars to advertise like the formula companies do. And, as you can see, in the short period of time, Nestle has gained in the market. They have gotten quite a bit of profits in the short period of time they have been doing this. And if Gerber joins, we will probably see the other formula companies follow.

So I think something definite needs to be done and needs to be done soon.

Mr. Blount. Following up on what you just said, I too am concerned about this type of media presentation on this matter and what it may or may not do to the fine virtue of breastfeeding that we try to promote.

I prematurely said "good news," and I am disappointed. I thought by what I had read in the previous Wall Street Journal the day before, there was going to be more competition in the market, not a teaming up to make less competition. And that bothers me, Senator.

That also is in part of my written testimony. I think we have to be extremely cautious and looking at WIC funding through any type of cost containment that is so closely tied to the industry that, by their very nature—I do not knock it—by their very nature they are responsible to the stockholders and not to the welfare of the people. And I think some of these type of campaigns are probably more negative than they are positive from the standpoint of good health.

So I wished I could still be happy. I might get more passionate and say I am disappointed from what I thought the news might be.

Senator Harkin. Yes. I do not know. We may have to address this problem outside of the WIC Program itself.

Mr. Bach. It is not a problem just for WIC mothers, but it is a problem for the general population.

Senator Harkin. Exactly.

Mr. Bach. Everybody. I have often said that one of the biggest problems that we have within the WIC Program in encouraging breastfeeding is that we do not have the resources to go beyond the pregnant mom and reach the mother-in-law and the husband who are probably the biggest obstacles to breastfeeding.

If you are looking at combating television advertising, this is a major difficulty.

Senator Harkin. Yes. Mr. Bell, you mentioned that the rules and regulations were too complex.

Mr. Bell. Yes.

Senator Harkin. I want to make them simpler. If it is in your testimony—I just did not get a chance to read all of it, but if it is there, you do not have to answer this—but do you have some suggestions, do you have a couple of examples?

Mr. **Bell**. Yes. In the attachment that will be flown in at some point today, there are some examples.[1]

But, just as a quick example, the infant formula and the rebates.

Senator **Harkin**. Yes.

Mr. **Bell**. Well, let me give you a simple example. With something that is as well intended as Senator Burdick's amendment last year, that said have the States, all the States look into this and see what can be done to encourage them to provide cost containment systems.

What came out of that were regulations that required all States, whether they had rebates or not, to do feasibility studies, analyzing all forms of cost containment, comparing savings, and submitting these to the Department. Even States that already had infant formula rebates had to do this.

What happens is that these good ideas gets translated into regulations that then require extensive staff work, it requires local agencies to spend more time working on paper, documenting problems than serving clients.

What we are proposing to do is say if you have an outcome that you want, hold us accountable for that outcome. Come back and look and see whether or not we developed a way to attain that. But do not just start putting process on us that, in effect, does not do any good, that just takes staff time away from clients, and particularly with the complexity of the clients who are dealing with that agency, it is really difficult to spend enough time, even in the promotion of breastfeeding.

We found in Washington State, we were one of the States selected for a special HHS grant on breastfeeding promotion, and the conclusion was if you spent enough time with the moms and with the families, you would have some impact on the breast feeding rates. But if you are spending all your time pulling out forms and documenting different processes and adding Social Security numbers and everything else to these systems, you do not get to spend the quality time with the client to impact their behavior. And that is what we are looking at.

I do site examples in my full testimony.

Senator **Harkin**. You said the infant formula rebate was too complex also.

Mr. **Bell**. Yes.

Senator **Harkin**. Do any of the rest of you feel that way too?

Mr. **Blount**. Most assuredly, Senator, I have covered that with more detail in my written testimony.

There is complexity, particularly when you, as I referred to awhile ago, continue to separate cost containment rebates through the conversion process from the grant as a whole. Our recommendation to treat the rebates in the same manner as the rest of the grant may be an oversimplification but I think it at least points in the right direction.

---

[1] See pp. 166–170, NAWD Legislative Proposal.

The NAWD people working in management are suggesting that you and USDA look at treating the infant formula rebate money on the same ratio for food and operations that it would in the original draft. That type of simplification, I think can be well justified.

Senator HARKIN. Dennis, you mentioned about the Iowa thing, and I did visit some of those where they integrate the whole thing. I watched it in operation and you said that maybe it's good for Iowa but not for other States.

I mean it would seem to me that that would be something that would be good anywhere. It is sort of a one-stop shopping, you know.

Mr. BACH. I think coordination with federally funded maternal health programs is something that is getting more and more attention everywhere. And it is a good thing. But there are other types of local health care delivery systems in place in other States that Iowa simply does not have, that are just as effective as coordinating with the local MCH clinic.

The concept of the one-stop visit I think is found everywhere. It is just how you carry it out in practical terms.

Senator HARKIN. I see.

Mr. BLOUNT. Senator, may I just make a comment again on what is in my written testimony.

I think if it is good for Iowa to the north, it is good for the neighbor to the south.

Senator HARKIN. Do you have that kind of a thing in Missouri?

Mr. BLOUNT. We are moving in that direction. I have encouraged it for years. We have not gotten it everywhere.

One of the things that I did include in my written testimony is what I believe to be a unique situation in all the country on how we are going to be able to track people in one program and the others by using a common client number. I am not suggesting that you legislate that, because it has taken us a few years to do it, and it takes a lot of money and time and it might not be best for every State.

But I do feel again very strongly about USDA's position yesterday when they were saying WIC is an aside to other health services. Though I was not here at the time, I read the written testimony after I got in late.

Again, going back to those studies that I have referred to where money is saved, we have found that if you really want to get the greatest benefit of your WIC dollar, that you must get the prenatal woman into the health setting by at least the end of the first trimester; that you significantly increase the mean birth rate and reduce the instance of low birth rate if you have her in the health setting and not just giving her nutritional food, as valuable as that food is.

So I do not see how, in good consciousness, you can separate WIC from this coordinated effort. I think it is good for any State.

Senator HARKIN. What is the current rate of breastfeeding among participating mothers in the WIC Program compared to similar groups of non-WIC? Did you say half? Now, I do not understand.

Ms. LAZAROV. That is comparing all non-WIC mothers with WIC. Now, if you look at similar population groups, in other words, you know, low-income women that maybe have a similar demographic profile, there have been some studies done recently that have shown significant differences.

Dr. David Paige at Johns Hopkins did a study on a Maryland WIC population, and compared those rates of breastfeeding with a similar low-income population of women that were not participating in the WIC Program. And he found the rates were six times as high among the women who did not participate in WIC.

Senator HARKIN. Six times for breastfeeding?

Ms. LAZAROV. Right. The rates were six times as high for breastfeeding among those women not on the WIC Program.

Now, the rates were low for both populations groups. I mean you are looking at 12 percent compared to 2 percent. There was another study that has been funded through the Department of Health and Human Services that showed similar results in an Ohio population. You know, one-third of those women that were on WIC chose to breastfeed, while two-thirds of those low-income women not on WIC chose to breastfeed.

Senator HARKIN. Now, what can we do? Are we going to reauthorize this?

How can we start moving WIC in the direction away from just being an infant formula distributor and getting really into, as you said, getting women during that first trimester working with them with nutrition, with food supplements, things like that early on, and then begin working with them on an educational basis early on, not after the baby is born, but before, to encourage them to breastfeed, show them why it is good? What can we do? How do we change legislation?

Mr. BACH. I have one comment.

Senator HARKIN. Sure.

Mr. BACH. Encouraging breastfeeding is a resource intensive effort. It is something that has been a priority in our State as well. I have four breast-fed kids at home, and I have been a supporter of breastfeeding for a long time. And we put a lot of effort into training the local staff dietitians, training others that work with the same population, providing the most up-to-date information and counseling methods. The thing that we cannot provide them is enough time to spend with the mother. I mean you have one or two 10-minute nutrition education counsel sessions in a clinic in the course of a pregnancy. That is not enough to counteract all the other influences or constraints that she has in that area.

You need additional support while she is pregnant, and you need followup support afterward. Just the matter of making resources available to provide more staff time, I think, is one of the most immediate things we have to deal with.

Senator HARKIN. So your answer is just that you need more staff, more counseling, having people to consult with them and talk with them and work with them, right?

Mr. BELL. To follow up with him, when we did our—I think one of the points that Minda made is the higher, the middle income women have a peer group that support, that are breastfeeding or have breastfed, while these low-income women do not. We are that sort of that peer group, our support. And if we cannot spend enough time with them, then we cannot impact the rates.

Mr. BLOUNT. Senator, to show the age difference between Dennis, of your great State and myself, he has four breast-fed children. I have six breast-fed grandchildren. So that puts me in a different category. Therefore, my source is not as authoritative as his maybe.

The way the question was asked, Senator, and I know the passion with which you asked the question, I know of your commitment to breastfeeding. But what I have found happening back home in Missouri and in other places, that sometimes we expect too much out of probably the most successful program yet.

So, when you raise the question, what can we do? Very frankly, Senator, this may sound bad, but I do not know that we can do a great deal because breastfeeding goes much beyond the program or any single program.

Senator HARKIN. Does what?

Mr. BLOUNT. It goes much beyond what WIC can do by itself. It is a social, demographic, economic thing that Loren was speaking of. And I am afraid if we are not careful, because WIC does not change the breastfeeding data we might be judged for what we can do little about.

Senator HARKIN. How about incentives? Now, you asked——

Mr. BLOUNT. Incentives, yes, incentives.

Senator HARKIN. USDA yesterday testified that—you correct me if I am wrong—they said something about extending the program an additional 6 months, giving them more benefits if they breastfeed. Explain that to me if they breastfeed.

Mr. BLOUNT. A good example, I think that type of incentive is good; for instance, the post partum woman breastfeeding gets on the program; however, the post partum woman in Missouri who is not breastfeeding does not get on the program unless she is under 18 years of age because we do not have enough resources.

So we can give the incentive for the mother who breastfeeds to keep her in the program through her eligibility.

We can do what I think Loren speaks to so well. You have at least a minimum staff support that can build a support climate and do some educating. But, beyond that, I personally feel, as much as I love WIC, WIC cannot change that social cultural thing to the extent that we would like to see it changed. And I would hate to be held accountable for that change.

Ms. LAZAROV. If I could comment on that briefly, Senator Harkin, I definitely concur.

I do feel that it should not be left alone to the WIC Program to take on the responsibility of increasing the rates of breastfeeding among low-income women. But I do have to say that I feel that WIC had a responsibility to change what is now happening when the woman walks through the door of the WIC clinic.

Senator HARKIN. Good for you.

Ms. LAZAROV. Unfortunately, the way it is set up now, the emphasis is on formula, and most WIC professionals are committed to trying to do something about it. But, because of the limitation of resources you have heard about from all of us, it is very difficult.

Senator HARKIN. There are right now, are there not, Minda, additional benefits that a woman receives if they breastfeed?

Ms. LAZAROV. Well, only after 6 weeks. And, of course, most women do not breastfeed that long. They get the same package up to 6 weeks post partum, which really extends into 2 months.

Senator HARKIN. Whether they breastfeed or not?

Ms. LAZAROV. Right.

Senator HARKIN. Everybody gets the same package?

Ms. LAZAROV. Yes.

Senator HARKIN. After that, what?

Ms. LAZAROV. After that, the breastfeeding woman will get a little bigger package. It depends——

Senator HARKIN. Are they aware of that?

Ms. LAZAROV. I should hope so, in most clinics they are, yes.

Senator HARKIN. Do people really inform them of that?

Ms. LAZAROV. Uh-huh.

Mr. BLOUNT. I believe so, Senator.

Senator HARKIN. Do they then encourage them to continue on breastfeeding?

Mr. BLOUNT. Most assuredly.

Mr. BELL. Oh, yes. But I think the point is we see them one day out of a month.

Ms. LAZAROV. Right.

Mr. BELL. And the rest of the time that they are not there, they do not get that kind of support and help that we can provide them.

The program that we had in Seattle phoned the women once a week, how are you doing, are you having problems, can we send someone over to help? I mean, if you make that kind of effort, you impact them. If you see them once a month and say how are you doing, they have probably stopped. It is that kind of support that is needed.

Ms. LAZAROV. I think the other thing that WIC programs can do is network with the other, with the hospitals, with the other MCH and DHHS programs that have interactions with these women, because they need to be hearing it from a variety of sources so that part of these dollars that we are talking about being designated would be to network with these other programs, including hospitals.

Senator HARKIN. What about if we just said that WIC will not cover infant formula any longer unless the doctor certifies that it is medically necessary?

Ms. LAZAROV. I will comment on that.

Senator HARKIN. That would have an impact, would it not?

Ms. LAZAROV. I feel like that is probably a goal the WIC Program wants to establish in the long run. I feel like WIC, when it was initiated, was set up in an environment where formula feeding was the norm. It is no longer the norm. When I say the norm, I am talking about just what most women do in the population of the United States.

I think eventually we should see a program that truly supports breastfeeding as a preferred norm and makes formula available on a prescription basis only in those cases that it is actually needed.

We are the only country in the world, with the exception of Japan, that gives out Government funded formula. So, what it has done is set into place perhaps a lack of motivation for hospitals serving these low-income women to follow through in supporting them with breastfeeding. They know that as soon as they leave there, they are getting all the free formula they want.

So it does provide a disincentive but you cannot just yank it out of the system. It needs really to be studied to see what the potential impact on this population would be.

Mr. BACH. I am concerned that if we tried to legislate that sort of cultural change, what we would end up with is a lot of WIC women feeding their children milk instead of formula or breast milk. Because we still fight that battle in Iowa with mothers and physicians who do not breastfeed and do not want to give formula after a couple of months and switch to cow's milk, which I think is an even worse problem.

Mr. BLOUNT. All I was going to do was concur with Dennis.

I think that as much you and I and everybody else thus far supports breastfeeding, we cannot legislate breastfeeding; frankly, I believe we would end up with a greater nutritional problem than what we have under the present circumstances.

Mr. BACH. One comment that I wanted to make about incentives, however, is that while it is true the breastfeeding woman gets an extra gallon of milk in her food package, I am not sure that is seen as a significant difference, especially compared to a WIC mom who picks up WIC checks for her own package plus $50 worth of checks for infant formula.

In terms of the actual dollars that we spend, we spend more on the post partum mom and on formulas than we do on the breastfeeding mom. I am not sure that they really understand—they may be told that they can stay on for 12 months versus 6 months. I am not sure that sort of off-in-the-future benefit really provides much of an incentive.

The other kinds of incentives that USDA talked about yesterday are indirect incentives that reward a State where there are greater breastfeeding levels, and not the individual mom.

I think one of the things that we could do is to try and find some more outright incentives for women to breastfeed.

Ms. LAZAROV. If I may add one other comment in reference to what you all said.

I think as we examine this problem, hopefully a little bit more closely, we also need to consider that we might see some greater use of whole milk. But we have to balance that against what the other decreased improvements in the health of these infants, in the self-esteem of these mothers, you know, has occurred from not being able to support them with breastfeeding.

So I think it is really a complex issue that perhaps we need to really put a lot of emphasis into studying it and seeing how it could be attacked over the long run.

Senator HARKIN. Well, I am very interested in that. I was involved in the Nestle thing a few years ago. Now I am very concerned about this new advertising thing. It really bothers me.

How effective is the health assessment in the WIC Program in determining nutritional risks? Is it effective, the health assessment program?

Mr. BELL. Yes, I think so. WIC was designed to be an adjunct to health care. And that the nutritional component of that, that the States have developed, I think is very good.

Senator Harkin. What are the standards that are used for this health assessment, and are they consistent State to State?

Mr. Bell. No, they are not consistent State to State. Some of them focus on different problems of subpopulations. For example, when I was in California, we had some different nutritional risk assessment for Vietnamese refugees that came in, that had different kinds of problems, and we were seeing in just the general population. And in different States that are linked with various other health and social delivery systems, the risk criterion may be adjusted to sort of match up with that integration.

I think a lot of them are the same. I think there are some variances that do deal with these different risk populations. But I think for the most part we are looking at anemia, we look at the height and the weight. And all those things are pretty common.

Mr. Blount. Senator, pardon me for being vocal again at this point.

Here is where you hit my button—now you did not hit me, but here is where the USDA testimony hit the button with me yesterday. When I read their statement, it implied, the way I read it, it almost implied that the States were playing around with nutritional factors out there according to how many dollars they had. And there was laxity that was coming into the program, through this, that and the other.

I resent that. The only adjustments that have been made in the Missouri criteria since 1978 basically is not that we have loosened up, but we have taken nutrition risks that were defined by some of the finest physicians, nutritionists and other people, including faculty members from the great Washington University in St. Louis, in pediatrics and nutrition at Missouri University, practicing pediatricians, and academy people.

Our standards, I think, are very responsible. What we have to do, when dollars are short is to take people who are already in deep need off the program. If there has been any relaxation in the real risk criteria across the country within the last year or two to my knowledge, and I think I stay pretty close to the community, it is that some of us, like Missouri, who took people off who were nutritionally at risk by medical advisers because we did not have money, now because we have been able to get some of the infant formula, rebate, we are going back to serve those who were deemed nutritionally at risk back in 1978. There has been no relaxation to any degree at all. I agree there is not uniformity, but there has not been relaxation.

Senator Harkin. OK. What I was trying to get at was the Child Nutrition Act of 1966 identified five target nutrients: high quality protein, iron, calcium, vitamin A, and vitamin C. How do you determine if someone is deficient in those?

Mr. Bach. Through a diet assessment.

Senator Harkin. Do you have standards that the Secretaries put out, the Department of Agriculture?

Mr. Bach. Not standards in area of diet assessment. That is left up to each State's own devices.

I mentioned earlier that we have spent a lot of effort over the last years developing a new diet assessment tool that more accurately assesses the quality of a person's diet in an attempt to more accurately decide who should be on the program for that reason and who should not. There is no uniform national diet assessment tool that is being used.

I believe USDA is interested in looking at whether it is feasible to develop such an instrument. In fact, there is a task force meeting in July that somebody from our staff is going to be on, plus some other State WIC Directors, to look at that issue.

Senator HARKIN. If you could make one change in the WIC Program, what would you make?

Mr. BELL. I think it would be, in Washington State, just speaking as the State WIC Director, and not the president of the National Association, every day we take off priority three children. Those are children with nutritional medical risks at age 3 because we cannot serve them in our State.

And if there is any change that I could make in the program, it would be that we would have a predictable funding and growth of the program so that we could plan ahead and come up with additional resources that we need, open new local agencies so we would not have to turn these people away.

It is the most heartbreaking thing in the world to go to a hearing where your family brings these kids in that are in as much need as anyone else, and tell them sorry, we cannot serve you because we do not have any money.

Senator HARKIN. I should have added one thing. What changes would you make aside from more money? [Laughter.]

Mr. BLOUNT. Why not ask for the best, Senator, if you can get it—Missouri serves only 45.3 percent of its potential need. But if you want to go another way; I would not direct more money than we have already asked to WIC. Rather, I would ask you to see WIC in all of the good that it is doing in the total context of the arena in which services are delivered.

Part of the problem in Missouri, a part of the problem in the other States and this may sound strange to you—as much as I plead for more money for WIC, we cannot continue to have the high quality of services and serve those other 55 percent in need in Missouri unless we also have support for maternal and child health needs, to serve people where we have the facilities and the trained personnel to deliver WIC in the right setting.

So I plead not only for WIC, but I plead for all the health arena through which women, infants and children get their needs met.

Senator HARKIN. Minda or Dennis.

Ms. LAZAROV. I think you probably know the answer to that question from me. But I think in the broader picture in general, it relates to dollars, have the time to be able to really sit in a much more relaxed setting, to meet eye-to-eye with these women and address their needs, their nutritional needs, in a way that is building their self-esteem and not pushing it down.

So many of our clinics are so rushed. We rush them through the system, and as they walk out the door, they feel like they have been beaten down one more time. And we really need a little bit more time to deliver a quality service like we used to be giving.

Mr. BELL. And I guess that would be mine. We should serve them, not process them. And I think what happens is we process paper, we do not serve people.

Senator **Harkin**. Thank you all very much. I appreciate it. Keep up the good work.

Next is Dr. David Heppel, M.D., testifying for Dr. C. Everett Koop, the U.S. Surgeon General, for the Public Health Service.

Dr. Heppel, welcome to the subcommittee. Your statement will be made a part of the record. If you could summarize.

STATEMENT OF DAVID HEPPEL, M.D., DIRECTOR, DIVISION OF MATERNAL, CHILD AND INFANT HEALTH, PUBLIC HEALTH SERVICE, DEPARTMENT OF HEALTH AND HUMAN SERVICES, WASHINGTON, DC, ON BEHALF OF C. EVERETT KOOP, M.D., SURGEON GENERAL, PUBLIC HEALTH SERVICE, WASHINGTON, DC

Dr. **Heppel**. Thank you, Senator Harkin. I am happy to be here.

I am the Director of the Division of Maternal, Child and Infant Health at the Office of Maternal and Child Health. The Surgeon General has a long-standing interest in increasing the frequency and duration of breastfeeding.

In 1984, he sponsored a Surgeon General's workshop on breastfeeding and human lactation. In 1985, he developed a followup report to this workshop. Copies of these documents have been made available to the Congress.

I regret that Dr. Koop is unable to be here this afternoon, and am pleased to read his statement.

Breastfeeding should be actively promoted in all maternal and child health programs. Health experts worldwide agree that breastfeeding is the optimal way to nurture infants and should be practiced whenever possible. I use the term "nurture" deliberately since it means "to feed and care for during growth." Another term for breastfeeding is "nurse," which means "to look after carefully," as well as "to suckle." Breastfeeding is, therefore, recommended not only as a method of feeding but also as a caring relationship.

In fact, lactation is the primary feature that sets us mammals apart from the rest of the animal kingdom. Human milk, as the unique species-specific source of infant nutrition, not only allows birth to occur at an early stage of development, but also requires a time of intense maternal-infant interaction to facilitate early behavioral development.

Breastfeeding offers many important benefits for mothers, babies, and also for society. In summary, for mothers it affords protection against hemorrhage and quicker recovery from childbirth, stronger bonding with the baby, and relaxation while nursing. For infants, breastfeeding provides optimal nutrition for normal growth and development; protection against disease, especially ear infections and gastrointestinal distress; and decreased risk of allergies. Breastfeeding also has benefits for society through stronger family bonds, women's fulfillment of their aspirations for motherhood and increased self-esteem, and decreased health care costs for infants.

Lactation is an integral stage of the reproductive cycle. The body prepares for lactation throughout pregnancy, and lactation automatically occurs soon after the baby is born.

There is abundant evidence that human milk is designed to enhance optimally the growth, development, and well-being of the infant. A mother's milk provides the best protection for her infant against specific infections. This cannot be duplicated in infant formula.

These benefits are meaningless unless women breastfeed. The rates of breastfeeding have been slowly declining since 1982, and breastfeeding rates in lower socioeconomic groups remain much lower than in more affluent groups. Therefore, infants who could benefit most from the immunologic advantages of human milk are least likely to receive this protection.

A decisive way to promote child health in the United States in the next decade will be to implement effective breastfeeding promotion programs so that the unique and important benefits of breastfeeding can be made available to protect health, nourish, and optimally develop infants in all segments of our society.

Thank you for the opportunity to present this.

Senator HARKIN. Dr. Heppel, thank you very much for that fine testimony and for being here.

What program does the Public Health Service have to promote breastfeeding?

Dr. HEPPEL. The main programs in the Public Health Service dealing with breastfeeding come through the Office of Maternal and Child Health.

We encourage breastfeeding as part of the prenatal care program, through the State MCH programs, and also have a number of demonstration and research programs, two of which you heard about in the previous testimony.

For the record, if you wish, I happen to have a copy of the abstracts of the demonstration and research projects that deal with breastfeeding and can leave that for the committee, if you wish.

[The document "Breastfeeding, SPRANS Abstracts FY 1989" can be found on pp. 195-228.]

Senator HARKIN. I would like to have that.

Given this new advertising campaign by Gerber and others, would you foresee a further decline in breastfeeding as a result of that?

Dr. HEPPEL. I am extremely anxious about this activity as we were anxious about the activity with Carnation earlier.

Right now, as I mentioned, breastfeeding is declining and has been declining for the last 6 years. It is not only these kinds of activities that have created the problems, and frankly we are not entirely sure what all the reasons are for that decline. I think part of it that was alluded to by the gentleman from Missouri is that this is a broader issue, and certainly the issue of women in the workplace and the positive environment for providing breastfeeding opportunities in the workplace is something that may have an effect here. Obviously this is not going to help.

Senator HARKIN. Thank you very much, Dr. Heppel.

Next the nutritionist panel, Dr. Connie Weaver, professor of foods and nutrition at Purdue; Dr. Suzanne Hendrich, assistant professor, food and nutrition, at Iowa State University in Iowa.

Welcome to the subcommittee, Dr. Weaver and Dr. Hendrich. Again copies of your prepared statements will be inserted in the record in full. If you would please summarize.

Dr. Weaver.

STATEMENT OF CONNIE M. WEAVER, PROFESSOR, DEPARTMENT OF FOODS AND NUTRITION, PURDUE UNIVERSITY, WEST LAFAYETTE, IN

COMPARE FOODS CURRENTLY USED AND PROPOSED IN THE FOOD COMMODITY PACKAGE

Dr. **Weaver**. Mr. Chairman, I wish to compare the various foods currently used in the food commodity package and those that are proposed to possibly be included in terms of their contribution to iron nutriture.

The recommended daily dietary allowance for iron in the target population is 15 milligrams per day for infants, 10 milligrams per day for children, ages 4 to 10, and 18 milligrams per day for females age 11 to 50. This is approximately 15 times the physiological need for iron. And the reason of the discrepancy between what is recommended in terms of dietary intake and what is physiologically needed is because iron from food sources is quite poorly absorbed. The range is great. It can be as low as less than 1 percent of the total iron available for absorption and utilization by the body, to some sources having over 35 percent of the iron in that source to be absorbed.

It depends largely on how soluble the iron is in the foods. The particular percentage of iron that is utilizable from a food depends mainly on three factors. One is the physiological status of the individual consuming the food.

In persons who are on iron-adequate diets for a long time, who have developed stores of iron, absorb iron a lot less well than individuals such as your WIC participants.

HOW LONG CAN YOU STORE IRON IN YOUR BODY?

Senator **Harkin**. How long can you store iron in your body? Is that what you are talking about?

Dr. **Weaver**. You can store it until it is utilized, until it is incorporated into red blood cells. But if you are on a diet that's inadequate for your needs for a considerable period of time, your stores are used up, if you ever deposited any.

And those who are on WIC that have been screened for iron deficiency anemia have essentially no iron stores. So they can absorb iron much better from foods than individuals with adequate iron stores.

SECOND MAJOR FACTOR THAT DETERMINES ABSORPTION

The second major factor that determines absorption is the individual food source of iron. Some foods provide iron that is pretty well absorbed. The most well absorbed iron comes from meat, fish and poultry because 40 percent of that iron is present as heme iron which is highly soluble, well absorbed into the blood form. Whereas, some food sources of iron are very poorly absorbed because they have a low solubility.

CEREALS AND OTHER FOODS HAVE A VERY WIDE RANGE OF ABSORPTION

The iron sources used to fortify cereals and other foods have a very wide range of absorption depending on how soluble they are which can vary from batch to batch depending on the particle size that in turn determines the solubility.

So, iron from fortification sources can vary from less than 1 percent up to maybe as high as 5 percent.

THIRD THING THAT DETERMINES IRON ABSORPTION

The third thing that determines iron absorption from foods is the presence of enhancing or inhibiting factors to iron absorption that is consumed along with the iron in the food, which influences solubility of the iron.

The two major factors that you could consume along with iron that would enhance its absorption are vitamin C, and the other one an unidentified meat factor in meat, fish and poultry.

SEVERAL KNOWN INHIBITORS TO IRON ABSORPTION

There are several known inhibitors to iron absorption such as tannic acid in tea, phosphoproteins in egg yolk, and some components in wheat bran that could lower the absorption of iron.

IRON ABSORPTION VALUES

So you cannot give actual iron absorption values from individual foods without knowing the physiological status of the individual consuming the food and what else you are eating along with the iron source in the meal. But I have tried to calculate the cost-effectiveness of relative iron absorption from the foods that are being considered for the food commodity package on page 4 of the testimony.[2]

And the way I did that was I took the cereals for which I could find national average costs that are currently allowed in WIC packages and compared that to national cost per ounce of meat, ground beef and ground chuck, and eggs. And so the cost per ounce basis is given in column 1.

One ounce is equivalent to a serving size for cereal. For small children, 1 ounce of meat may be a serving size. For an adult, it would be more like 3 ounces per serving size, and an average egg would be approximately 2 ounces. Then I looked up the amount of total iron in each of these products and calculated the cost per milligram of total iron. Then I used relative values, as best one could determine from the literature, although it can vary, of 2½ percent for fortified cereals, 26 percent for the iron in meat, and 8 percent for eggs. All of this would be for individuals with zero iron stores.

So, then, in the last column, the cost per milligram of utilizable iron, physiologically available iron, ranges in cereals from the cheapest from Branflakes being 28 cents per milligram of absorbable iron up to 92 cents per milligram iron for cereals. Whereas, ground beef would be 58 cents per milligram of absorbable iron that would fall in that range of cereals, in eggs 79 cents per milligram absorbable iron.

So, in terms of absorbable iron from that resource, ground beef would compare favorably to cereals. And you have the added enhancing factor of the meat factor if you consume the meat with any of the other iron sources of increasing the absorption from those sources.

---

[2] See page 232 for table 1.

Now, ascorbic acid is an enhancer, and if you consume any of these foods along with some orange juice or vitamin C fortified juice, you would enhance the absorption of iron from these sources. Some of these cereals have ascorbic acid or vitamin C added to them. This vitamin C is likely to increase iron absorption, although there are not data available to show that vitamin C added to a dry product stored over time is effective for enhancing iron absorption, and not all the cereals add vitamin C. But those that do add vitamin C, and that have more iron, the whole recommended dietary allowance per serving, are likely to be the most available useful sources of iron.

If you look at some other considerations other than iron nutritive, the cost on a per-calorie basis for hamburger is .15 cents per calorie from ground beef compared to a range in the cereals of .11 to .17 cents per calorie. So, on a calorie basis, it compares.

There is more protein in meat than in cereal. Meat has less cholesterol than eggs, more fat, and less fiber than cereals. So there are other nutrient considerations.

But for the WIC individuals, unlike the average American well-fed population at least, cholesterol and dietary fat would not be a concern. As a risk factor in those particular populations, it would be the rare individual that would have to worry about consuming so much cholesterol and so much fat as to put them at some sort of health risk.

OVERALL CONCLUSION

My overall conclusion is that I think a balanced diet, a more varied selection of foods gives the individual a better chance of getting all the nutrients they need and avoiding toxicities.

[The prepared statement and table 1 of Dr. Weaver appear at the conclusion of the hearing.]

Senator **Harkin**. Well, that is very interesting. Thank you very much. Good research.

Dr. Hendrich, thank you for being with us.

STATEMENT OF SUZANNE HENDRICH, Ph.D., ASSISTANT PROFESSOR, FOOD AND NUTRITION, IOWA STATE UNIVERSITY, AMES, IA

Dr. **Hendrich**. Thank you, Senator Harkin.

CAN THE NUTRITIONAL STATUS OF WIC PROGRAM PARTICIPANTS BE IMPROVED BY CHANGING THE COMMODITIES PACKAGE?

The question that I am here to address is can the nutritional status of WIC Program participants be improved by changing the commodities package?

Picture the following scenario: a mother and her 2-year old son are receiving a WIC package. This plus a weekly food budget of about $45 could provide, in a typical day, only about 50 percent of this family's estimated daily iron requirements assuming that the mother is not well educated nutritionally, which I think is a reasonable assumption in most cases.

The mother feels tired. She has difficulty concentrating on her studies in a job training program. She has a low work capacity. The child is often fatigued, overirritable, has a poor attention span, and diminished learning ability.

Does this picture represent a failure of Government aid programs? I think the answer is emphatically yes, and in a very specific context. This picture is symptomatic of iron deficiency. Lack of iron impairs the body's ability to carry oxygen to the brain, muscles and other organs. Iron deficiency lessens work capacity, and I think there is more substantial evidence that iron plays a very important role in learning ability than for any other nutrient.

IRON DEFICIENCY IS THE MOST COMMON NUTRITIONAL DEFICIENCY IN THE UNITED STATES

Iron deficiency is the most common nutritional deficiency in the United States. The prevalence of impaired iron status among 15- to 19-year old women is estimated to be about 3 percent of whites, 12 percent of African-Americans, and 6 to 12 percent of Hispanic-Americans, and among 20- to 44-year old women, 5 percent of whites, 6 percent of African-Americans, and about 10 percent of Hispanic-Americans.

Conventional nutrition wisdom has suggested that blacks have lower iron status than whites due to inherent racial differences. But recent evidence comparing the iron status of black and white military personnel under a situation which would ensure similar nutrient intake between both groups, suggests that the magnitude of this difference is much less than was previously supposed, and that any greater differences that might be observed in population studies must be attributed primarily to nutritional intake.

It is clear that iron deficiency is widespread, especially among the most economically disadvantaged members of our population, that iron deficiency has serious economic and intellectual consequences, and that Government intervention is needed to remedy this problem.

IRON SUPPLEMENTATION, EITHER IN PILL FORM OR HIGHER LEVELS OF IRON FORTIFICATION OF COMMON FOODS, SHOULD BE REJECTED

Short of an ideal society, which I am sure we can imagine, what strategies would be most effective? I think that iron supplementation, either in pill form or higher levels of iron fortification of common foods, should be rejected for the following reasons:

One, that it is difficult to ensure safety in dose compliance with the use of iron supplements. Many people irrationally believe that if a little is good, a lot will be better. And iron in high doses can be quite toxic.

In addition, about 3 out of 1,000 males in the United States are genetically predisposed to iron toxicity, and further, population wide, iron fortification or supplementation would be expected to be harmful to these individuals.

I think a simple and effective solution may be to target the populations, especially at risk, with dietary changes that would be easy and relatively inexpensive to accomplish. Changing the WIC commodities package to include meats is one approach to consider. Not only do meats, especially beef, pork and lamb, contain high amounts of iron, but a form of iron in all animal flesh foods, heme iron, which is the type of iron found in hemoglobin or in muscle protein, found as myoglobin primarily, is about five to eight times more readily absorbed than the iron in plant foods or than the iron in fortification chemicals.

Heme iron can also significantly increase the absorption of iron from plant foods when eaten in the same meal. For example, if you added one 3-ounce serving of lean meat to a meal, you might expect to increase the absorbed iron about threefold in an iron deficient woman. This could increase her daily iron absorption just from that one meal averaged out over all the meals she would be taking in in a day by about two-thirds, which would end up meeting about 80 percent of estimated requirements.

The inclusion of 2 pounds of lean beef or pork per month would increase absorbable iron to a level that would provide approximately 70 percent of the requirement of this woman. If you included 4 pounds of meat per month, you would reach a level of absorbable iron of approximately 90 percent of the requirement.

Chicken and fish would also improve iron status, but not as significantly just because they contain less total iron, and increasing amounts of foods high vitamin C, as Dr. Weaver already mentioned, would also have the effect of improving iron absorption.

Substituting meat for eggs or some cereal or peanut butter in the package, I have estimated will provide for a somewhat higher dietary iron content without compromising the protein or other nutrient status of participants.

The inclusion of meats would pose somewhat of a management problem because meat labeling currently provides very little information regarding the nutritional quality of the product, and very lean cuts of meat would certainly provide the best nutritional value.

There are other nutritional needs that are not being met by the WIC package that I do not really have time to address.

IRON STATUS IMPROVED BY THE INCLUSION OF MODERATE AMOUNTS OF LEAN MEAT

In summary, I think that the inclusion of moderate amounts of lean meat on the order of one-half to 1 pound per week in a monthly WIC package could be expected to significantly improve the iron status and, therefore, the intellectual and work capacities of the most economically disadvantaged of Americans; single mothers and their children.

[The prepared statement of Dr. Hendrich appears at the conclusion of the hearing.]

Senator **Harkin**. This is very interesting testimony.

What you are really saying, what you said in a couple of ways, both of you, is that if a child does not have adequate nutrition, that diminishes their learning ability.

So, now that we are not expanding the WIC Program and reaching out to all the eligible population, we are really depriving those kids of a decent education because they will not be able to start school as well equipped as higher income people.

Dr. **HENDRICH**. That is right. And there is evidence that the impairment is long term and, at some point, cannot be remedied by supplementation.

Senator **HARKIN**. So maybe we ought to think about this a little bit differently. It is not just a nutrition program. It is an educational program also. This gives me some new thoughts on this whole program because we should start looking at it as the initial steps toward a sound education.

Now, you are saying as a scientist, both doctors, that this is demonstrable?

Dr. **HENDRICH**. Yes.

Senator **HARKIN**. That the lack of these nutrients definitely diminish your learning ability?

Dr. **HENDRICH**. Yes.

Dr. **WEAVER**. And work performance.

Senator **HARKIN**. Work performance?

You talked about some iron supplements being more absorbable than others. Could you tell me which are ineffective as well as those which are most effective? Could you just supply those for the record.

What supplements do you say are ineffective? Are there some that are ineffective?

Dr. **WEAVER**. Yes. But most of the cereal companies have corrected those. Ferric orthophosphate, for example, is very poorly absorbed. I could only find one cereal that is currently fortified with that. They have all gone to hydrogen reduced elemental iron, which is much better absorbed than the old ones or questionable ones.

Senator **HARKIN**. OK. But the most absorbable is this heme iron that we were talking about yesterday.

Dr. **WEAVER**. That is correct.

Senator **HARKIN**. I have finally gotten a better idea of what heme iron is.

Dr. **WEAVER**. That is correct.

Senator **HARKIN**. And ascorbic acid also enhances absorption rate?

Dr. **WEAVER**. That is correct, two to four times.

Senator **HARKIN**. Now, is the same iron content available in fish as well as in meat, or is it mostly meat, or what?

Dr. **WEAVER**. The darker the flesh, the more myoglobin in there for the more absorbable iron. So you could line up the meat tissue and kind of rank them by color, and you would have a pretty close estimate.

Senator **HARKIN**. That is interesting. I never knew that.

Dr. **HENDRICH**. If you wanted to compare say lean ground beef with chicken, say, a mixture of light and dark meat or chicken, or tuna fish, the total iron content on a serving basis would be about a little bit over twice as high in the beef. The heme iron content would be the same, pretty close, but the total iron would be different.

But all three, meat, fish and poultry are the most absorbable iron sources.

Dr. **WEAVER**. Right.

Senator HARKIN. Well, thank you both very much. I appreciate that.

I may have some written questions that I may want to send to you for your responses.

Thank you. I appreciate it very much.

Our last panel, Edward Cooney, Food Research and Action Center, and Robert Greenstein for the Center on Budget and Policy Priorities.

STATEMENT OF EDWARD M. COONEY, DEPUTY DIRECTOR, FOOD RESEARCH AND ACTION CENTER, WASHINGTON, DC

Mr. COONEY. Thank you, Senator.

Senator HARKIN. Thank you, and your prepared statement will be made a part of the record.

Mr. COONEY. I would just like to summarize my testimony.

First I would like to thank you for inviting us to testify and for the work of your staff on this particular hearing, particularly Bob Andros. I see that Terri Ninetmann of Senator Boschwitz' staff is here, as well as David Johnson. We enjoyed working with your staffs, and staffs of other Members.

FIRST ISSUE I WANT TO DEAL WITH IS THE SUMMER FOOD SERVICE PROGRAM FOR CHILDREN

The first issue I want to deal with is the Summer Food Service Program for Children. I would like to thank you for your efforts last year on legislation designed to establish a pilot program which would bring private and nonprofit sponsors back into the Summer Food Program. We think that is a very important provision because eligible sponsors like schools and units of government are not fulfilling the needs of millions of low-income children to get access to this nutrition program.

Working with my colleague, Mr. Greenstein, and several members of the American School Food Service Association, we have developed a proposal [3] which is included in my written testimony, which these organizations have endorsed, and which will allow thousands of low-income children to be fed, while at the same time meeting the accountability needs of the Federal and State administrators. The proposal also will provide a substantial benefit to poor children living in rural areas.

As you know, Mr. Chairman, there are 24 million children who receive a school lunch daily in the national School Lunch Program. Approximately 12 million of these children are low income. And we know from USDA studies that low-income children receive anywhere from one-third to one-half of their total daily nutrient intake from the national School Lunch Program. The Summer Food Program is designed to complement that program during the last 3 months of the year.

If you have any questions on that proposal, we would be glad to review them with you.

I also would like to submit for the record a letter from Chairman Mickey Leland of the House Select Committee on Hunger which endorses including private nonprofit sponsors in the Summer Food Program.

---

[3] See pp. 236–241 for the prepared statement of Mr. Cooney.

STARTUP FUNDS FOR THE SCHOOL BREAKFAST PROGRAM

The second issue that I wanted to deal with in a summary fashion is startup funds for the School Breakfast Program.

We know from a study called the Meyers study that came out in May, that low-income children participating in the School Breakfast Program have been shown to have significant improvement in achievement test scores. Also less tardiness and less absenteeism was reported by schools in Lawrence, Massachusetts, which participated in this study.

Despite these benefits, only one-third of all schools that participate in the national School Lunch Program also participate in the School Breakfast Program.

INCREASE THE AUTHORIZATION FOR NET

Our recommendation to you is that there be an appropriation of $5 million, which is currently assumed in the fiscal year 1990 budget resolution that would allow the Secretary of Agriculture to distribute grants to State educational agencies to benefits schools that are in need of one-time funding for costs associated with initiating a School Breakfast Program, have a significant percentage of low-income children in their school, and agree to operate a School Breakfast Program for 3 years as a condition of receiving Federal startup funds.

Allowing Federal startup funds would remove a principal barrier to participation by low-income children in the School Breakfast Program.

WIC PROGRAM

Our third issue deals with the Women's, Infant and Children's Program. We support the Harkin-Boschwitz and Leahy, Lugar and Dole effort to increase WIC funding by $150 million over current services for fiscal year 1990.

We also appreciate your desire to make important noncost improvements in the WIC Program. We are aware of your behind the scenes efforts, as well as your public efforts, in urging Senator Sasser and Senator Domenici to put this money in the budget resolution.

We are also appreciative of your efforts in taking the leadership in getting 73 Senators to sign a letter in support of appropriating this money.

Mr. Chairman, we agree with the recommendation of the Ford Foundation that the benefits of WIC be available to all who are eligible. We believe that such a worthy goal is obtainable over the next 4 to 5 years, and that by adding $150 million in new funding next year, along with the cost containment efforts that Mr. Blount alluded to or spoke about, is a very good first step toward meeting the goal of serving all eligible women and children.

I emphasize children because of a growing concern that children are being left out of WIC as testified to by your preceding witnesses. In a recent study, which the Food Research and Action

Center released, called "Feeding the Other Half: Mothers and Children Left Out of WIC," our one central finding was that young children—those between the ages of 1 and 5—are the least likely to receive the benefits of WIC. We estimate that, at best, only 38 percent of the children who are poor and at nutritional risk currently are being served. Nearly 3 million eligible children nationwide have been left out of the program.

These children need the additional benefits of WIC and the health care associated with WIC participation, or else serious impairment to full physical and mental development can occur.

In our particular study, 84 percent of the WIC directors indicated that inadequate funding is a barrier to serving all people who are eligible and wish to participate.

Nearly one-fourth (23 percent) of the States responding indicate that they cannot serve preschoolers above certain ages or who have inadequate diets but have not developed serious medical conditions; simply stated, State agencies have been forced to set up arbitrary cut-off points for services to some children due to lack of funding to serve all who apply or are eligible.

What does this finding say about fulfilling the congressional intent in creating WIC as a preventive program, a program to prevent the occurrence of health problems and to improve their health status of poor people.

What happens to children who do not receive WIC? What happens to children who receive WIC for 3 years and then are cut off?

We asked Dr. Jonathan Kotch to take a look at that issue, and he testified before the subcommittee yesterday (June 14) and talked about how such children are likely to be shorter, lighter in weight, and suffer from poor iron status. The precise issues and problems that are faced by such children who are left out of WIC are the very same problems that the WIC Program is designed to take care of.

As you know, it improves nutritional intake, it decreases the incidence of anemia, and generally improves the use of health care. That is why we support your efforts to expand the program.

We also support it because it is the morally responsible thing to do. We know that this subcommittee and the committee generally and Congress cannot solve all the Nation's problems, but we can do something about hunger and expanding the WIC Program is very important. If we cannot do it as a moral commitment, we ought to think about doing it in the area of enlightened self-interest.

This is a proposal or an idea that has been suggested by many people, but the Committee for Economic Development, a group of 200 corporate executives, has taken the leadership on this issue.

A couple of weeks ago, a gentleman by the name of Robert V. VanFossen, who is the chief executive office of Mutual Benefit Life Insurance Company in New Jersey, pointed out in a speech that in the next 15 years, over 50 percent of the new entrants into the work force will come from public schools in distressed urban areas. He noted that tomorrow's economy depends on today's children.

Senator HARKIN. Did you say 50 percent?

Mr. COONEY. Fifty percent over the next 15 years, over 50 percent of the newer entrants into the work force will come from public schools in distressed urban areas.

Tomorrow's economy will depend on today's children. A child who is undernourished will have a lower IQ, shorter attention span, and poorer grades in school.

Mr. VanFossen mentioned, as an aside, that less than 3 out of 10 employees in his company in the clerical or secretarial category meet the company's basic employment standards. At Prudential's Newark office 40 percent of the job applicants cannot read at the ninth grade level. New Jersey Bell had to interview almost 10,000 applicant to hire 1,500 people, only one-quarter of the applicants passed Bell's minimum skills test. Is this the best we can do?

Do we really want to deny WIC services to children? I think not, and I think you are headed in the right direction with this modest 5 to 7 percent increase in funding.

WE ALSO SUPPORT SEVERAL IMPORTANT NONCOST CHANGES IN THE WIC PROGRAM AND IN THE CHILD CARE FOOD PROGRAM

Mr. Chairman, we also support several important noncost changes in the WIC Program and in the Child Care Food Program, which I have included in my testimony.[4]

We also support an increased authorization for the Nutrition Education and Training Program (NET), and several importance nutrition policy changes in the national School Lunch Program.

COMMUNITY FOOD AND NUTRITION PROGRAM

As a final note, I wanted to thank you for your leadership on the Community Food and Nutrition Program, which is the only Federal program in the Government that brings together the child nutrition programs, like school breakfast and child care, as well as the child nutrition advocacy community.

Just so that you know, the Department of Health and Human Services is about to release a report which will indicate that because the Community Food and Nutrition Program (CFNP) is in existence, 500,000 low-income people are now receiving nutritional benefits. The program is responsible for donating 300,000 pounds of food. The groups which received Federal CFNP funds have also raised $6 million from the private sector in the fight against hunger. So that your small, but very important program that is currently funded at $2.5 million, was able to raise an additional $6 million in the private sector.

On a more pedestrian note, it will be very helpful if we could fund the program at the full authorization level which is $3 million. It is funded currently I believe at $2.4 million. But we have a long list of thank yous for Tom Harkin and I only have 10 yellow pages left, so that is it.

[The prepared statement of Mr. Cooney and attached letter from Representative Mickey Leland appear at the conclusion of the hearing.]

Senator **Harkin**. Ed, thank you very much. I appreciate your leadership in this area and the years that you have spent working on this, and I look forward to working with you on this issue to get the bill through.

---

[4] See pp. 239-241.

Mr. Cooney. For the record, I am a couple of years younger than Mr. Greenstein.

Senator Harkin. All right.

Bob, welcome to the subcommittee, and please proceed.

STATEMENT OF ROBERT GREENSTEIN, DIRECTOR, CENTER ON BUDGET AND POLICY PRIORITIES, WASHINGTON, DC

Mr. Greenstein. Thank you, Senator. I would also like to commend you for all the work you have done on these programs over the years. In fact, I think I remember the first conversation you and I had on food stamps back in about January of 1975 at a reception of the House Agriculture Committee when you were being installed as a new member. And I remember walking away and talking to someone and saying, I think this guy is really going to be a major player on some of these hunger programs. But little did I know how much you would be involved.

Senator Harkin. It seems like yesterday. My gosh. It was 14 years ago. My gosh. And we really still have not met, 15 years later the need that we addressed at that time. All that work and all that effort and it just seems like sometimes we are on a treadmill trying to catch up, just trying.

Of course, we did have 8 years, the last 8 years which put everything behind. [Laughter.]

But at least we kept the programs intact anyway.

Go ahead.

Mr. Greenstein. And we did in fact, during the past 8 years, due to important bipartisan leadership on this committee, continue expanding the program even through that 8-year period. I think that is no small accomplishment.

MY PRINCIPAL FOCUS WILL BE ON THE WIC PROGRAM

Today, my principal focus will be on the WIC Program. As you may know, Senator, WIC is a major interest of the Center's—we have a unit that now has four people on it that work on WIC and related health issues, directed by Stefan Harvey, who has been working on these issues even longer than you and I have known each other.

SUMMER FOOD PROGRAM

But, first, I would like to address some issues regarding the Summer Food Program.

As Ed Cooney mentioned, many poor children remain unserved by the Summer Food Service Program. This is particularly true in the rural areas. There is a recent USDA study of the Summer Food Program which found that only 13 percent of the low-income children who receive free or reduced price school lunches during the regular school year are now reached by the Summer Food Program during the summer. [Food and Nutrition Service, U.S. Department of Agriculture, "Evaluation of the Summer Food Service Program: Final Report," July 1988.]

One reason for such low participation is that only schools, public agencies, or residential camps can operate the program. All charitable and voluntary organizations, such as YMCA's, boys clubs and girls clubs, settlement houses, churches and the like, are excluded. The very types of operations that we praise for running soup kitchens or emergency food pantries are prohibited from running summer food programs, even if no school or public entity in the area is otherwise willing to operate the program.

NEW USDA STUDY SHOWS SOME OTHER VERY INTERESTING DATA

The new USDA study shows some other very interesting data. Let me pass this down so you can look at it, as I am mentioning this. These are the figures from the USDA study.

It shows that in 39 States, and those are the States listed on that sheet, the number of low-income children served through the program is less than 15 percent of the number of low-income children who receive free or reduced-price school meals during the regular school year.

For the Nation as a whole, the average is 13 percent.

In everyone of the 15 most rural States in the Nation, the number of children served by the summer program was less than 15 percent of the number of children receiving free or reduced-price school meals.

In 12 of the 15 most rural States, the number of children reached in the Summer Food Program equaled less than 10 percent of the number of children receiving free or reduced-price school meals.

In Iowa, for example, the figure there is 6 percent. Only 1 out of every 16 children getting school lunch during the regular year gets summer food during the summer. In fact, for the 15 most rural States as a whole, the average is 6 percent, the same as the figure in Iowa.

I think we need to take steps this year to help fill those gaps but, at the same time, we need to take care to guard against the return of some of the real abuse problems that did mark the summer program in the late 1970's. The key to this, I think, is to distinguish those types of nonprofits and charitable institutions that were associated with abuse in the 1970's from those that were "clean." The kinds of organizations that had problems should remain barred, but others should not.

DISTINGUISHING CHARACTERISTICS OF THE TYPES OF ORGANIZATIONS THAT EXPERIENCED SERIOUS PROBLEMS

A review of the audits from the 1970's makes clear that there were distinguishing characteristics of the types of organizations that experienced serious problems. They basically were nonprofits, private nonprofits that contracted with private vendors for the delivery and the preparation of meals. They were usually nonprofit, serving large numbers of children at large numbers of feeding sites, and often there were organizations that had no community function other than serving meals during the summer.

Well, to make a long story short here, I think we know the types of sponsors that were clean and the types that were problems. We can design the criteria so that we basically limit the program to nonprofits that cook their own meals or obtain them from a school or public facility that are small, that do not serve large numbers of kids, and that do not have more than several hundred children at any one site.

[The prepared statement and attachments of Mr. Greenstein appear at the conclusion of the hearing.]

Senator HARKIN. We had some private groups in Iowa doing this, also some nonprofit groups. They did a great job, as you pointed out.

But evidently there was some fraud or something that took place in a couple of cities, and so they just did away with the whole thing.

Is that essentially what happened, Bob?

Mr. GREENSTEIN. What happened was that there was abuse problems, as the inspectors general reports show, virtually entirely among private sponsors that contracted with private vendors primarily in big cities. And that came to light at the same time that we had the budget crunch and we had the 1981 budget cuts. And you also remember how quickly the 1981 cuts moved through.

So, rather than kind of taking the time to make a lot of fine distinctions, basically any private nonprofit sponsor was simply eliminated from the program.

What we are proposing now is not to undo the 1981 budget cuts. Most of them would be left in place. Rather, we would simply make a distinction and say for a small group of nonprofits that are very small themselves, serve fewer than 2,500 kids—no big sites with 2,000 kids at one site—and do not contract with a private vendor for the meals could participate. They have to cook their own meals or get them from a school or public facility. Only these sponsors would be allowed back.

The bulk of the restrictions enacted in 1981 would remain. The kinds of sponsors that caused abuse problems would still be excluded. But this would give us an ability to make a much better effort to reach some of those who are now unserved, particularly in rural areas.

Senator HARKIN. Didn't we try this a couple of years ago?

Mr. GREENSTEIN. We tried it last year.

Senator HARKIN. It was last year we tried it?

Mr. GREENSTEIN. Yes. In the Hunger Prevention Act, and we came within a whisker of getting it, and the problem was not in this body but in the House. We have good reason to believe that the House position has changed.

Senator HARKIN. I thought I had discussed this with you before.

Mr. GREENSTEIN. Yes, that is correct. But this year it can happen.

Senator HARKIN. I think we can do it this year.

Mr. GREENSTEIN. That is right.

Now, moving to the WIC Program. As you know, the WIC Program is just a terrific program and I will not go into all the new reports and latest evidence, but I do want to mention a couple of things.

Number one, as you know, we only reach about one-half of the eligibles now in WIC. If you used the Department's estimates of eligibles, then about 3½ million eligible women, infants and children still remain outside the program.

One of the most exciting things that has happened in the last couple of years, and you have played an important part in this, is the spread of infant formula cost containment systems.

I want to clear up what may have been a misunderstanding or a misimpression that was left by some of what the Department said at yesterday's hearing. I think you and Senator Boschwitz might have been left with the impression that infant formula cost containment can add another 700,000 to 800,000 people to the WIC Program. That is simply not true. This is not a matter of controversy. It is just not a correct number.

Here is where that number came from. In the Department's administrative cost study, they have done an estimate of the total number of people who could be added to the program in all States from infant formula cost containment if not a dime of the money was used to cover the administrative cost of adding the new people to the program, which is the whole point of doing cost containment.

I am not saying that critically. In the context of that study, that was the right analysis to do at that point. What happened I think is, you know, somebody in the Administrator's office asked for a number, and the number got pulled without realizing what it was. So there are two problems with the 700,000 to 800,000 number.

Number one, it ignores a fact that it is now an established practice in WIC which everyone, including the Department, concurs with: that a portion of the money has to be used to cover the administrative cost of adding the new people to the program.

As a result, when you do the computations properly and account for the administrative costs (using, in every other way, USDA's methodology) the 700,000 to 800,000 figure drops to 600,000 to 700,000, or maybe 600,000 to 650,000. Number two, this figure covers the *total* number of people that cost containment can add. However, you have to subtract from that the number of people who have already been added to the program. Cost containment has been underway for a year, a year and a half in some areas.

Our best estimate is that 200,000 to 300,000 people have already been added as a result of cost containment. They are already in the program. Our best estimate is that we can add an additional 300,000 to 500,000 people from cost containment. That is not insignificant.

But if we have 3.5 million eligibles unserved, that means we can only cover about 1 out of every 10 of those through further cost containment. That is important to keep in mind.

Senator HARKIN. I am glad you brought that up.

Do you have that outlined in your statement?

Mr. GREENSTEIN. No, because I did not realize that the Department said that when I did the prepared testimony. But I would be happy to provide you information in writing on that.

Senator HARKIN. Good.

[The information of Mr. Greenstein follows:]

In its recent study of WIC administrative cost issues, *Study of Funding for Nutrition Services and Program Administration in the WIC Program*, USDA estimated that if all States instituted infant formula cost containment systems, about 800,000 additional WIC participants could be served with the savings. However, as USDA has noted, when it computed this estimate it assumed that *none* of the savings would be used to defray the administrative costs of adding these additional participants to the program.

Since, under current law, a portion of the savings are used to defray these administrative costs—and since virtually all Federal and State policymakers, including USDA officials, agree that this practice needs to continue—the USDA estimate that 800,000 new participants can be added to the program with cost containment savings is neither very accurate nor especially meaningful.

When the administrative cost factor is taken into account—and the USDA methodology is faithfully followed in all other particulars—the result is an estimate that cost containment can add 600,000 to 700,000 persons to this program.

Even this figure must be properly understood. It does *not* mean that an additional 600,000 to 700,000 people can be added to the program, on top of the people on the program today. We must understand that a substantial number of participants *already on the program*—probably 200,00 to 300,000—are currently able to be served because of cost containment savings. As a result, we estimate that about 300,000 to 500,000 additional persons, beyond those now on the program, can be added due to savings from infant formula cost containment measures.

This is a large number, to be sure. But today there are approximately 3.5 million unserved people who are eligible for WIC. As a result, we need to recognize that cost containment can cover the costs of adding only about 1 in every 10 women, infants, and children who are eligible for WIC but not presently reached by it.

Mr. GREENSTEIN. Now, a couple of keypoints about things to do in WIC. I would say that one of the most important things to do is to improve the coordination of WIC with other programs. We would very strongly recommend, I think the States also would agree, that women, infants and children receiving Medicaid, AFDC or food stamps be considered as meeting the income limits for WIC. It does not put them automatically in. You still have to meet the nutritional risk test and there still has to be enough money.

But they have already been through an expensive and time consuming income verification process. The income limits in those programs are generally more restrictive than WIC's, so they are eligible in nearly all cases anyway. And with all the things we have to do in WIC, it does not make sound administrative sense to have them go through an eligibility income process all over again. We have better uses for scarce dollars in the WIC Program.

Now, I would also add that new census data show that only one of every three children below the age of 4 who are enrolled in Medicaid also receives WIC. So we hope that by aligning the programs and coordinating them better both to make the program more efficient and reduce administrative costs that have to go to certification, and get more people in need into the program.

I would caution you I am a little disappointed, and I say this as someone who works closely with USDA and has high regard for the Department's operation of the WIC Program, I would say higher regard than for the operation of some of the other food programs, at some of what I see coming where there is beginning to be some material talking about how complex the eligibility rules are in the Medicaid program by way of saying, gee, do you really want to get the WIC Program into this?

This, I think, is largely a red herring. If you say that someone on Medicaid automatically meets the income test for WIC, the WIC clinics do not have to learn any of the Medicaid rules, they do not have to apply them. It is simple, it is not complicated.

We do the same thing in food stamps. If you are on AFDC or SSI, you are automatically eligible for food stamps. Food stamp workers do not have to learn the complexities of the AFDC and SSI rules. The only other point that is made is, if you do this, there might be some people not eligible for WIC now who become eligible.

The food stamp income limit is lower than the WIC limit, AFDC is lower in every State, and Medicaid is lower in every State for children above the first birthday. There are a small number of States that have the same income limits in Medicaid and WIC for pregnant women and infants.

One group, and it is very small, who would get new eligibility for WIC are people in some States we call the medically needy. Do you know who the medically needy are? The medically needy are people who do not have health insurance generally, and incur catastrophic health costs that, after you subtract the health costs out of pocket, their remaining income is usually far below the poverty line.

Right now they are not eligible for WIC for a very simple reason, that nobody wanted to make the WIC Program get into the complexities of doing deductions for catastrophic health care costs. But I must say I have no problem with saying that somebody who, after a catastrophic medical bill, is at 50 percent of the poverty line, but whose gross income is twice the poverty line, should be eligible for WIC if they are pregnant or have an infant or young child.

I think what is going on here, and I think it is unfortunate, is that the Department, as you know, under the constraints of OMB, to be sure, has not supported as large increases in WIC funding as the Congress on a bipartisan basis has provided. And those of us who do support increases keep saying, well, there is only half of the eligibles being met, or 52 percent, whatever the figure now is. And under this provision, the 52 percent of the eligibles being met might end up being changed so that it is 51.8 percent instead of 52 percent. And that is about the dimension that we are talking about.

My understanding is that from the political people downtown, there is a sense that they should oppose anything that takes that percentage down one-tenth of a percentage point. I think this is bad health policy. You will find virtually no health administrator in the country who does not think that it is not in the interest of poor children and health of the Nation to align Medicaid, maternal and child health and WIC more closely, coordinate them better. And I really urge you to not get sidetracked and to do that this year.

In the testimony, we also have concerns about improving WIC, the WIC administrative costs, and some cash-flow problems. I think working with staff, in both the Senate and the House, that solutions are developing on that. I would like to support those efforts, the proposals that have been made to encourage more breastfeeding in the program, and also just to note again your leadership on cost containment.

Senator, there are 42 States that now have infant formula cost containment systems in place. All but a few States should have them by the end of this fiscal year, the savings being achieved vary greatly from 47 cents per can in one State to $1.45 a can in California and $1.353 in Indiana and Tennessee. And we would note that in testimony on the House side in February, the American Academy of Pediatrics testified that they favored the use by each State of the system that would yield the largest savings, while maintaining the quality of the formula. That would represent our view also.

Let me stop there other than to make one very last comment, and that is about the testimony you just heard on the potential inclusion of meat in the food package.

When I was the Administrator of FNS back in 1980, this issue came up. When I first saw the information on the iron content of meat, my first reaction was to jump and say let us add it to the food package. I had my staff study it, talked to other experts in the field. After they did that, I dropped it.

It is not that meat does not have a lot of iron, it does. But there are a number of other complex issues in here. Unlike the other elements in the food package, you do not have a standard package size. You have to get what is the right quantity of food. Unlike the other items, you cannot buy a half a month or a month's worth of food all at one time. It will spoil.

I am not saying you should not look into it. All I am saying is there is more to the question of changing the food package and adding meat than simply saying it has a lot of iron, let's add it.

And I would strongly urge the Congress not to legislate in that area. I think it is appropriate to direct the Department to look into it, to report back to you with the pros and cons, but it is quite complex. The more I looked at it, the more I learned that back in 1980. And I would just hope we would not jump precipitously and write something into legislation that we would be sorry about when we actually went to implement it.

Senator HARKIN. Yes, I am a little reticent, Bob, to anything like that. I am not an expert. We had the two, Dr. Weaver and Dr. Hendrich who were here testifying, and there seems to be some good research on that.

But this is something again which you are right on. I think I would rather have the Department look at it. But if you looked at it back in 1980——

Mr. GREENSTEIN. Well, actually, that is right. I think there are a series of issues that warrant further examination.

In 1980, there was another issue I was even more concerned about concerning the cereal in the program that was iron fortified. It was fortified using different fortification methods, and some of it seemed to be fortified in a way that would be readily absorbed into the body, and others in a way that would not be as readily absorbed. But the scientific knowledge was not far enough along then to even come close to thinking about regulating.

And in talking to people in the Department, I have discovered that that has not been looked into in 8 years. And presumably there is more research knowledge now.

So I would say the whole question of iron absorption in the WIC package, it is time to take another look at, but we should not make policy decisions until we have taken a new careful look.

Senator **Harkin**. Well, I have got to run over to Appropriations and protect some things.

Thank you both. I want to especially compliment not only you individually, but the Food Research Action Center and the Center for Budget and Policy Priorities. This is one Senator who wants to say thanks to your two organizations for all the fine work you do.

I hope that as we proceed on the reauthorization bill, and toward markup, I hope that I can call on you at any time to give me the benefit of your knowledge and your backgrounds.

Bob especially, we worked together for a long time. I think we have an opportunity this year to make some significant changes, beneficial changes in these programs, the Summer Feeding Program, for example, that we just talked about, the breakfast program, all the things we are talking about in the WIC Program. I am just looking for any way to expand it and get the funding in it, should we make it an entitlement program once you meet the income and nutritional risks, there would be the entitlement program.

Mr. **Greenstein**. That has been foreclosed for this year.

Senator **Harkin**. Well, maybe so.

Mr. **Cooney**. There is always next year. We look forward to the kind of effort we had in the Hunger Prevention Act with the staff, and really big bipartisan effort even though it is a much smaller bill, we are looking for a very happy-go-lucky conclusion.

Senator **Harkin**. Thank you both very much.

The subcommittee will stand adjourned.

[Whereupon, at 4:05 p.m., the subcommittee adjourned, subject to the call of the Chair.]

[Material submitted for inclusion in the record follows:]

APPENDIX

PREPARED STATEMENT OF LOREN BELL, PRESIDENT, NATIONAL ASSOCIATION OF WIC DIRECTORS, OLYMPIA, WA

I would like to thank the committee for the opportunity to testify on the reauthorization of the Special Supplemental Food Program for Women, Infants and Children, commonly called WIC.

In preparing my testimony, I have taken under advisement the questions provided by Senator Harkin in his Letter of Invitation. I will address the specific issues the committee asked me to address in a moment. I would, however, like to make two points to preface my presentation.

The first point is that the National Association of WIC Directors has submitted a legislative package which we feel will make the WIC Program a better program. The WIC Program certainly has provided a great deal of benefits to a great number of people over the years. The major focus of the program has been growth and accountability. While we see both of these as being necessary, we also would like to see the program a more efficiently run program, a program that is simpler for States to administer, yet hold States accountable for outcomes and results. Our legislative package is designed to simplify some of the current complex systems within the WIC Program and provide more efficient use of State and local staff time to provide services to clients. The choices we make in the process of reauthorization are to continue with a system that, in many cases, requires extensive paperwork on the part of State and local staff to document and provide information to the Government or to allow staff to have time to actually serve the client.

It is critically important to note that the type of client the WIC Program sees now is very different from the client we saw several years ago. The clients today present more complex problems than those in the past. We deal with situations such as children that have been neglected or abused, we deal with the problem of HIV/AIDS, we deal with problems related to malnutrition and hunger, we deal with problems related to homelessness, we deal with problems related to drug and substance abuse. All of the problems create a situation where WIC must take additional responsibility to provide appropriate referral and management of adequate nutrition. These clients take much more time to see. What we are asking for essentially in our package is the extra time to work with these clients and to help them, not to document paperwork and process.

The second major point I wish to make is that oftentimes many groups, such as ourselves and other advocacy groups, put forward points for legislation that may or may not be appropriate. What we hope this committee will do is that when it reviews all the issues in front of it, you will consider not legislating management practices for the WIC Program.

What has happened over the past several years is interest groups with legitimate concerns about whether their populations are receiving WIC benefits have come to the Congress and asked that their special interests be included in legislation. This has resulted, for example, in WIC being emphasized for the homeless. Prior to legislative change, the WIC Program could serve the homeless and, in fact, did so in many States. There were a few States that did not make the homeless a priority. Now we are all required to make them so. In doing this, one must consider that with limited funding when you make one group of special interest a priority, you are excluding another group of special interest that may be just as needy.

In our State, we are forced to take priority III children off the program at age 3 even though they would continue to be eligible up until age 5. In doing so, we have to select who our highest priority clients are. If it means taking off a disabled child, or a child that is in a family with severe alcoholism, or a child that is in an abusive situation, it hurts us greatly to do so. We would hope that Congress would consider that given the limited funding and our ability to serve these clients, that all the WIC eligible population be looked at the same way, and there be consideration for serving all of those clients in need and allowing States the flexibility to set some of their own priorities to coordinate better with other social and medical programs that are in their States that are already providing effective results.

If we have a good program that catches potential child abuse early, allow us to coordinate that with our WIC Program. If we have a program that concentrates on the homeless, allow us to coordinate WIC with that. But do not mandate nationwide that all of us must follow the same priority for a particular special interest group.

Now I would like to take the time to address the specifics the committee requested. First, I was asked to comment on participation levels. Currently, only about one-half of the potentially eligible WIC clients are being served through the program nationwide. The key issue here, as it always has been, is dollars. The money necessary to provide services to all the unserved clients is just not there.

State and local governments have worked diligently over the last several years to try to find ways to expand program participation in the absence of large increases in the Federal appropriation. Some States have provided funds to allow States to expand the program such as was done in my State of Washington. Other States have increased in-kind contributions to the program and have been providing free space and other essential components to their local agencies. In addition, States came up with the notion of infant formula cost containment as a means to serve more clients.

All of these efforts are commendable and all of these efforts have provided some results, but in order for there to truly be any national effort to serve all of the population of eligibles, there needs to be planned growth for the WIC Program coming from the Congress. We cannot continue to operate on the hopes that funding will be increased every year and develop our budget plans without any notion that this program will be expanded. Please consider some of the problems we face in preparing to expand the WIC Program.

Currently, if a major expansion of the WIC Program were to take place, many States would need to expand their local agency resources, including providing new clinic sites, hiring new staff, etc. This is a large undertaking, as those States that have increased their participation with infant formula rebates have already found out. As an example, in the State of Washington, we will be increasing our caseload by 13,000 clients a month, yet we had already reached our physical capacity to serve clients at a caseload level of 52,000. Now we must go out and find new local agencies and new clinic sites. We no longer are able to get the free rent that we used to get. We are no longer to get the same in-kind contributions from local governments who themselves are being severely cut back in terms of their revenues. We now must go out and work hard to make our expansion plans work. This takes time and planning to be efficient. We need to know in advance that this program will be expanded and planned modest growth will continue. Any way that this committee can help in that process would be greatly appreciated.

Secondly, in relationship to participation levels, currently 62 percent of the eligible children are not being served. The impact on these children is significant. The national WIC evaluation and other studies have shown that during this period of growth in children, the WIC Program and appropriate nutrition intervention can create a healthier, better immunized child. A document recently released entitled "Feeding the Other Half" by the Food Research Action Center clearly states that nutrition services are essentially during this time period. It cites several studies that indicate children that are not being served could have deficiencies later. We all know that this results in increased cost to other social and medical programs.

As a personal example, I have a daughter with a disability. She was born without any hearing and with other neurological problems. The cost to costs of medical care are still great. The cost of the neonatal intensive care unit that she was in for a week after she was born, the cost of the doctors' followup to get the diagnosis of her disability, the cost of remedies to the disability such as hearing aids and special education are significant. Yet, these types of disabilities in other children could be prevented with better nutrition.

The more children we do not serve, the more chances are that the cost to society will continue to increase. We are asking you to put money into a program to prevent these higher costs later. Studies in Missouri, as well as the Harvard Medical School, have clearly shown there are dollar savings related to WIC services. Putting the money forward now will save us those dollars later on down the road. It is not only a good investment from the sense of money, but it is a social investment as well. These children are the future and will be the ones that will be leading this country. If we all can remember back to when child nutrition programs were first authorized, they were authorized as a means of providing for the national defense, a means of providing healthy children that could defend our country and provide us with the kinds of necessary leadership we would need.

The second area I have been asked to address is cost containment. My colleague from Missouri, Mr. Richard Blount, will be talking specifically about cost containment. But I will make two comments at this time. First, no issue is more confusing and more frustrating to State WIC directors than the issue of WIC cost containment. I think most State directors and our colleagues at the Federal level agree that the complexity of this issue has reached a point where it has become frustrating for States to effectively implement cost containment systems. Proposals that have been submitted for the recalculation of infant formula conversion and proposals for dividing up the split between food and administration and nutrition services are necessary for us to simplify this matter. It is the type of frustration that causes many States not to wish to participate in something they know is good simply because it becomes so costly and so complicated to implement.

Secondly, I would like to address the issue of rebates on other food products. It must be clearly understood that infant formula provided us with a unique opportunity to receive products on a competitive basis. Infant formula companies used a horizontal pricing system and increased their prices above those of other food products. In addition, two companies control 90 percent of the market share, so an oligopoly situation exists.

The price increases for infant formula we received in the WIC Program were significantly higher than those of general food increases and they all occurred at the same time. The profit levels of these companies were significantly higher than most food manufacturers. Because of this, we were able to implement our infant formula cost containment system. With other products, though, there is a great deal of difference. For example, many companies have different lines of cereals and juices that have varied prices.

In other words, there is a vertical pricing structure. For example, a product like Total cereal costs significantly more than say hot oatmeal cereal produced by the same company. We would contend that within the existing regulations and within existing State options there are significant ways States can reduce food costs if they wish without going to a competitive procurement. In fact, competitive procurement may be counterproductive. WIC has a significant buying power related to infant formula, but with other products the public uses more often, we do not have that same kind of buying power. In fact, stores such as Safeway and major chains all have a more significant buying power than we would.

When Washington looked into competitive purchasing, we discovered that, at best, with our purchasing power, we could purchase cereals at the same rate a small chain store in Washington could procure them. By the same token, one could still walk into a Safeway store and buy the product off the shelf cheaper than Washington could procure it through any competitive process. If the States wants to limit the types of foods to just low cost foods, they can, but then you must remember we take away the freedom of choice from the client to be able to select the type of product that suits them. In this case, as some States have experienced when they have significantly cut back their food options related to cereal, the clients will purchase the food but not use it because it did not meet their own personal needs. We feel that freedom of choice and client acceptability must be considered when authorizing foods, but certainly States have been and will continue to be encouraged to use cost as a criteria for putting foods on the program.

The third area that I was asked to comment on is breastfeeding promotion. The National Association of WIC Directors clearly supports breastfeeding as the preferred method of infant feeding. We are in the processing of finalizing a position paper that clearly states this. In addition, it clearly states what our role should be and what State, local and other government agency roles should be in the promotion of breastfeeding among our clients. As part of our legislative proposal we have asked for funds to be specifically directed to help States improve their breastfeeding promotion efforts. You will hear others testify about this issue, but please be assured that the National Association of WIC Directors fully supports breastfeeding promotion, not only as a cost saving measure, but as the right thing to do for the health of the child. This position paper will be made available to the committee upon its finalization, but I can assure you that we are committed on this issue and will work with the groups that are currently promoting breastfeeding to make this a high priority for State and local programs.

I was also asked to comment on the new products by Carnation. These products are new enough that most States have not had the complete opportunity to formalize a policy on them, nor has the National Association of WIC Directors. Issues related to its labeling, its marketing, and other complicated problems have caused many States to delay making a decision on whether or not they will add this product to their authorized infant formula list. As information develops on this, we will be happy to provide it to the committee.

The fourth area I was asked to comment on was the WIC health assessment, which we interpreted to mean our nutritional risk criteria. There was a question raised about whether this should be consistent around the country. I would like to make several comments on this. First, the National Association of WIC Directors position is that there needs to be consistency in the criteria used by States for adopting nutritional risk criteria. That is, there should be documentation that a nutritional risk criteria is a valid one for the program.

We take the position that nutrition risk criteria should be medically sound and should be directly related to the family's ability to provide adequate nutrition to the client. We differ somewhat from our colleagues in USDA who feel that only nutrition risk criteria that are directly linked to the food package or nutrition education should be allowed. The Congress, we feel, would agree with us in that in authorizing legislation mental retardation is one of the nutrition risk criteria that is allowed even though the WIC food package will not do anything to improve that condition.

We feel conditions of the family that specifically relate to their ability to feed their children and make food selections related to that are important to be considered. For example, one of the issues that we have always considered in Washington State to be important was the parents' ability to provide adequate nutrition to the child based on their developmental status. We have looked at situations where children have been at risk of child abuse and neglect where, in fact, these children were at risk of being starved, mostly from benign neglect from the parent. We have been able to prevent two children in Washington State from dying of starvation because we put them on the program. But the condition we put them on for was the neglect, not the medical condition of starvation, because we needed to work with the parents and coordinate with other social programs to help these parents to provide better nutrition. In addition, we often used this criteria as a subpriority within our children's category in order to keep these children on longer so that there can be a monthly monitoring of these children. Recently, a judge in a custody case in my home State ordered a family, as a condition of having the child back in the home, to make their WIC appointments each month and asked the WIC clinic to report back to him on the child's condition.

It is important that we are able to integrate our nutrition risk criteria with the other programs in our States. Many States have child health programs that have specific eligibility criteria that WIC needs to be coordinated with. With the expansion of the Medicaid and Prenatal Care Programs, we need to be able to coordinate better with those programs.

Our position paper on nutrition risk criteria was sent out across the country and asked for comments. We have received considerable support in our position of flexibility. I have attached a copy of that paper, including a list of all those who have supported our position on this issue, including most importantly the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, several State WIC Programs and several State Departments of Health. We feel it is important that Congress, when they consider anything that would standardize nutrition risk criteria, continue to allow us the flexibility to adopt those criteria to our specific State's needs.

The fifth area I was asked to discuss is the WIC food package. The National Association of WIC Directors supports a revisit of the current food package. I understand others testifying will be addressing this issue.

Finally, I was asked to comment about vendor abuse. Grocer abuse of the WIC Program has probably been around since its inception. When I was in California in 1980, I was hired by the WIC Program to try to prevent and catch crooked grocers. We spent a lot of time, money and effort in doing so. Many States have tried over the years to effectively control vendor abuse.

There are two approaches a State can take. One is to exclude high risk vendors in the first place from participating in the program. What this does is essentially channel the WIC participants to major chain stores in order for them to receive their food and excludes them from going into their own smaller community stores, which are the higher risk grocers. A second choice is to allow more stores to have access, but develop systems that catch crooked grocers and provide severe penalties and punishment for those that are cheating the program.

In order for States to make this choice, they must evaluate their own situations. In Washington State, for example, even though we allow many grocers of different types to be on the program, most clients choose to go to chain stores. When I was in California, we did not have that same situation, mostly because in areas of high need, such as the area of Watts in Los Angeles, no chain stores existed in that area and participants were forced to go to neighborhood markets where the chance of abuse was higher. What we would argue for is allowing States to adopt systems and be held accountable for outcomes related to vendor abuse. We know that the Department of Agriculture disagrees with us on this point.

In the past it seems we have been told that we must have honest vendors or systems to stop vendor abuse and catch crooked vendors. Yet we have not really been held accountable for those outcomes. Rather than change the system, we would ask that we look more toward holding States accountable for having systems to catch grocers and reduce the abuse.

In addition, coordination with the food stamp program is essential because more often than not the same grocers that have abused WIC are abusing food stamps. It seems silly that in some States which do not have the physical or financial capability to set up systems, there are already existing food stamp compliance persons out catching the crooked grocers. We would ask that when looking at issues related to grocers that States be allowed to have the option to coordinate or contracting with their local food stamp people to do compliance checks on WIC stores. This would be a great help to those smaller States that do not have the resources available to conduct significant and expensive compliance purchase programs or screening programs.

Again, thank you for the opportunity to testify in front of this committee. I hope that we all can look forward to the time when we will not be in front of the committee talking about all those that are not served, but can deal more with the issues of the management of the program and improved efficiency. Right now the paramount issue in front of this committee is how do we make this a better program and a larger program. We are asking you to consider the legislative package that we have submitted as well as the comments we have made on the issues the committee is concerned about. I am now open for any questions the committee may have. Thank you.

[Attachments to Loren Bell's testimony follow:]:

National Association of WIC Directors,
Baltimore, Maryland.

To: Subcommittee on Nutrition and Investigations.
Date: June 26, 1989.
Subject: June 15th hearing.

The enclosed items are attachments to Loren Bell's testimony which was presented on June 15, before the Subcommittee on Nutrition and Investigations. These items were delayed by the airlines and therefore did not arrive in time to be included with the testimony which was presented.

National Association of WIC Directors,
September 2, 1986.

To: Nutritional Risk Advisory Committee.
From: Joseph T. Williams.
Re: Responses to Policy Statement and Guidelines.

Attached are copies of the responses that I have received as of September 2. As you can see, they are overwhelmingly positive and supportive for the work of the Nutrition Risk Committee.

I would like to have this project completed by the time the NAWD Executive Committee meets on October 21 and 22. Therefore, I would appreciate your reviewing the comments and being prepared to discuss them on a conference call that I will schedule for the week of October 6.

Thank you for your excellent work.

Endorsement and comments have been received by:

1. American Academy of Pediatrics;
2. American College of Obstetricians and Gynecologists;
3. District of Columbia;
4. Wisconsin Dept. of Health & Social Services;
5. North Dakota State Dept. of Health;
6. Cherokee Nation;
7. Tennessee Dept. of Health & Environment;
8. Oklahoma State Dept. of Health;

9. Minnesota Dept. of Health;
10. Ohio Dept. of Health;
11. Michigan Dept. of Health;
12. Nebraska Dept. of Health;
13. South Carolina Dept. of Health and Environmental Control;
14. The Navajo Nation;
15. West Virginia Dept. of Health;
16. Pennsylvania Dept. of Health;
17. FRAC;
18. South Dakota Dept. of Health;
19. Alabama Dept. of Public Health;
20. North Carolina Dept. of Human Resources;
21. Louisiana Dept. of Health and Human Resources; and
22. New York.

[The National Association of WIC Directors (NAWD) Legislative Proposal follows:]

NAWD LEGISLATIVE PROPOSAL

I. Division of Appropriations and Funds From Cost Reduction Initiatives

Problems: The WIC Program is facing a critical funding crisis. Competitive bidding for infant formula and other products makes possible the addition of hundreds of thousands of participants. Legislation authorizes some cost containment funds for clinic services and administration in the first 2 years after implementation of bidding. States which implemented bidding first will lose authority to use funds for program services this year. When this authority expires, per participant funding will drop by one-third.

A second problem arises from USDA treating cost containment income as a reduction of expenses. This method of accounting is complicated, does not reconcile with State accounting systems, and few staff understand it.

Sources of the Problems: (1) Legislative language that bases funds for program service on percent of total grant rather than number of participants served, (2) 2-year limits for converting infant formula rebates for program services, and (3) USDA insistence that formula rebates be treated as expense reduction rather than as program income.

Possible Solutions: Base funding for program services on numbers of participants served. Establish a per participant service cost based on FY 1987. Adjust for salary inflation and multiply by the number of participants in the current year. That sum would become the base amount USDA would authorize for program services and administration for the current year.

To support further cost containment, give States ongoing authority to convert food/rebate funds to program services based on actual participation.

Allow States to account for cost containments as program income. Give States using other types of purchasing equitable financial benefits.

Suggested Wording: Substitute the following for the first sentence in sec. 17 [42 U.S.C. 1786(h)(1)]: "The Secretary, in consultation with the states, shall establish a per participant program services and administration grant amount." The national total set at the beginning of each fiscal year shall be no less than the FY 1987 per participant administrative grant plus salary inflation for intervening years multiplied by potential participation for the total food grant amount. States shall be given ongoing authority to convert food grant funds or cost containment funds at the same rate as the base grant based on actual participation. States shall be allowed to account for cost containments as program income. All purchasing systems shall have equal opportunity to share in cost containment financial incentives.

II. Funds for Special State Initiatives

Problem: As State program managers observe areas of WIC operation that need improvement, funds to pay for special projects are limited and not sufficient.

Source of the Problem: State WIC Programs are determined that high quality services are delivered to participants. The Focus on Management (FOM) concept was implemented by USDA to develop standards to measure the efficiency and effectiveness of the WIC Program in the areas of (1) administrative cost management, (2) caseload management, (3) vendor management, and, most recently, (4) nutrition services.

States which are in process of strengthening their ability to meet the Focus on Management standards need the opportunity to make improvements in the delivery of services to WIC participants. Annual program grants are spoken for in maintaining ongoing operations. States have occasionally been allowed to apply for small grants to fund special State initiatives. Such special initiatives can be a stimulus to staff, strengthen service delivery to participants, improve coordination within the health care system, and enable the State to meet FOM standards.

Possible Solution: To use $1 million of the $3 million research and special project fund as grants to States for special initiatives to improve quality of service delivery and ability to meet FOM standards.

Suggested Wording: Amend sec. 17 [42 U.S.C. 1786] to require a change in section 246.16(b) to read, ". . . migrants, Indians, and rural populations. Not less than $1,000,000 of the $3,000,000 shall be allocated by FNS to states through a grant program for special initiatives to improve quality of service delivery."

III. SOLVING THE CASH-FLOW PROBLEMS

Problem: A cash-flow problem exists at the end of the Federal year while the State awaits rebate payment from the last months of the Federal year but meanwhile is paying for vouchers cashed through the WIC bank.

Source of the Problem: States use rebate income to pay for additional food packages for an increased number of mothers and children. A State plans to spend its food grant (less its conversion authority) plus the rebate income for participant food costs. Most vouchers clear the bank during their valid month; however, the State does not bill for rebate charges until the end of the following month when the record of cans actually purchased is available.

Possible Solution: (a) To allow States operating a rebate system to "borrow" such funds as are necessary of the following year's grant to cover year-end expenditures before payments are received under their rebate contract. After the rebate income is received, the State can adjust accounting records to reflect expenses by Federal year, and (b) to make available within any continuing resolution such additional funds as are necessary to implement this provision.

Suggested Wording: Amend sec. 17 [42 U.S.C. 1786] to require a change in section 246.15(b) to read, ". . . law authorizing the Program. Until such income is received, the State agency may be advanced an amount equal to the income they would be receiving to be returned upon the receipt of the income."

IV. EXCLUDE MILITARY HOUSING ALLOWANCE FROM INCOME

Problem: Currently there is a discrepancy in certain lower ranks of the military in whether they will be financially eligible for the WIC Program:

Source of the Problem: For those families living on base, only gross income is counted. For those families living off base, both the gross income plus the cash housing allowance is counted.

In addition, off-base housing is oftentimes higher than the housing allowance, putting the families living off base in a tighter financial situation.

Possible Solution: To change the definition of "income" to exclude the military housing allowance that is paid to military families who live off base.

Suggested Wording: Amend sec. 17 [42 U.S.C. 1786] to require an addition to section 246.7(c)(2)(iv) . . .[M] Basic allowance for quarters (BAQ) received by military service personnel residing off the military installation.

V. MEDICAID AND WIC ELIGIBILITY

Problem: Federal legislation Public Law 100-203 allows States the option of extending Medicaid services to pregnant women, infants, and children with family incomes up to 185 percent of poverty. Medicaid, AFDC, and Food Stamp Programs count a pregnant woman as two persons for income eligibility purposes, while WIC counts the pregnant woman as one. In those States adopting the above option, WIC programs cannot accept Medicaid or other program enrollment as income eligibility for WIC.

Differing income definitions among health care programs which serve the same populations impede participant access to services. Referral and intake processes become more complex and hinder effective integration of services.

Source of the Problem: Strict legislative language specifying income eligibility for WIC, with lack of legislative authorization permitting acceptance of enrollment in other programs as proof of income eligibility for WIC.

Possible Solution: Addition of language to WIC legislation which enables the WIC Program to accept enrollment in Medicaid, AFDC, and Food Stamps as proof of eligibility for WIC. Allow WIC certifiers to count a pregnant woman as a family of two.

Suggested Wording: Public Law 95-627: sec. 17 [42 U.S.C. 1786], c, 3d (2), insert after the words "National School Lunch": ". . . and states shall have the option of accepting proof of enrollment in Medicaid, Aid to Families with Dependent Children, and Food Stamps to establish income eligibility requirements for the WIC Program without liability for incorrect certification in those programs. When establishing income eligibility, a pregnant woman shall be counted as a family of two."

VI. FUNDING OR TRADE-OFFS FOR NEW REGULATORY AND OTHER REQUIREMENTS

Problem: Each year the USDA adds administrative requirements to the WIC Program through regulatory change and other requirements. States are not compensated for but are expected to absorb these costs. Cost associated with the additional requirements often are substantial. The States may have no other choice in managing the funds but to cut local grants for services. Thus, the net result of increased administrative requirements is often poorer quality health and nutrition education services. The quality of services which the Rush Study shown to be effective in improving pregnancy outcome and infant health is eroded each year.

Source of the Problem: The WIC Program is a business with costs for all services including fiscal and audit controls. WIC cannot afford to control for all possible sources of loss any more than a well run business can. The Federal authorities deal with each problem by writing new regulations without making decisions about priorities. The best parts of the program are being slowly destroyed by this approach. To protect these services, WIC must have a fiscally responsible Federal management.

Possible Solution: (1) Establish a congressional commitment to deliver quality services for WIC mothers and children.

(2) Direct USDA to review NAWD recommendations for burdensome regulatory requirements to be deleted and take action.

(3) Establish a congressional mandate that additional paperwork requirements be limited. When USDA deems it necessary to add paperwork requirements, require USDA to justify these with a simple statement of the scope of the problem, estimated current loss level to the program, and estimated cost of implementing the controls.

Suggested Wording: Sec. 17 [42 U.S.C. 1786] (a) Add to the end of paragraph, "Congress hereby affirms its intent that program administration give priority to maintaining and improving quality services to WIC mothers and children as shown to be most effective in increasing birth weights by the National WIC Evaluation. Current regulatory requirements shall be reviewed for compliance with this priority and those deemed to be unnecessarily burdensome or not cost effective shall be deleted or changed. Additional requirements which take funds away from services for mothers and children shall be limited to those which can be justified by cost benefit. USDA shall justify these additions with a simple statement of the scope of the problem, estimated current loss level to the program (if applicable) and estimated total national cost of implementing the regulation including costs at the national, State and local levels."

VII. BREASTFEEDING PROMOTION

Problem: The advantages of breastfeeding to infant health are well documented, but while the rates of breastfeeding among middle and upper income women approach the national goal, the incidence of breastfeeding among low income and minority women remains low.

Source of the Problem: Breastfeeding promotion activities are labor intensive and require a long-term commitment of resources, in a program where delivery of basic services is severely limited by scarce resources. Consequently, WIC administrators are finding it increasingly difficult to fund these activities.

Possible Solution: (a) Earmark about $8 million annually specifically for breastfeeding promotion activities in WIC Programs. Appropriate funding from the pool of funds designated as food cost. These funds would be divided proportionately among the States on a rate of $10 for every pregnant and breastfeeding woman served by the States, based on the most recent participation data.

To keep reporting and fiscal accounting to a minimum, State agencies would be required to submit their plans delineating how these funds would be used to promote breastfeeding, as a part of the annual nutrition education plan submitted in the State Plan of Operations and Administration. Progress in effecting change in rates of breastfeeding would be monitored using existing reports of enrollment participation, as well as data from the Centers for Disease Control, where available. So in order to accomplish this a national definition of breastfeeding must be established.

(b) Include a lactation specialist on the National Advisory Council for Maternal, Infant, and Fetal Nutrition.

Suggested Wording: Amend sec. 17 [42 U.S.C. 1786(b)(7)] by inserting after "Nutrition Education means individual or group sessions and . . ." the following: "development and implementation of educational, awareness and support programs, to encourage breastfeeding and to sustain this practice among WIC's target population. . ."

Insert new section as follows:

"The Secretary shall make a minimum of $8 million of the funds provided under (g) of this section available each fiscal year to State and local agencies for implementing breastfeeding promotion initiatives. These funds shall be allocated from the pool of funds designated as food costs.

"By the beginning of the first quarter of each fiscal year, the Secretary shall allocate the funds provided for breastfeeding promotions (approximately $10) for every pregnant and breastfeeding woman served by the States. The number of such women shall be derived from the most recent participation data provided by state agencies. These funds shall be considered a part of the cost of nutrition services and administration.

"In implementing this section, the Secretary shall limit reporting requirements to the following:

"Require that State Agency include in its Annual Plan as noted under (f)(1)(A)(c) a description of the state's breastfeeding promotion plans for the fiscal year;

"Require that states report funds expended for this purpose as a part of its annual nutrition education cost.

"The Secretary shall use data provided by state agencies in current reports and data from the Centers for Disease Control to monitor the effectiveness of states' breastfeeding promotion initiatives in increasing the incidence of breastfeeding among the WIC population. Such reports shall include, but not be limited to, current enrollment and participation reports."

Insert after (K)(1): "There is hereby established a National Advisory Council on Maternal, Infant, and Fetal Health, composed of 24 members appointed by the secretary. One member shall be a certified lactation specialist. . ."

VIII. UPDATING POPULATION DATA BASE

Problem: Incorrect identification of parity.

Source of the Problem: Currently USDA is utilizing 1980 census data which does not accurately reflect current shifts in population.

Possible Solution: When new census data is available and every 5 years thereafter, the department shall update the projection of the potentially eligible WIC population for State agencies.

Suggested Wording: "The Secretary shall request the U.S. Bureau of the Census to make available an estimate of the number of potentially income eligible women, infants and children, by county and by State, from the data collected for the 1990 census. Furthermore, the Secretary shall request that the Bureau of the Census make available a statistically aged estimate of the income eligible WIC population, by county and by State, at no less than 5-year intervals following publication of 1990 census data."

IX. AUTOMATED DATA PROCESSING

Problem: State management information systems have been rendered obsolete and inefficient as technological enhancements have bypassed the systems in place.

Source of the Problem: State program managers observe areas of WIC operation that need improvement, particularly in relation to management information systems needs. Annual program grants are committed in maintaining ongoing operations. States have occasionally been allowed to apply for small grants to conduct a project or carry out a data system improvement. These efforts have resulted in effective, practical program improvements. Also, the common data set required for PC90 and PC92 will require expensive changes in current State management information systems to collect the data elements.

Possible Solution: Establish a special pool of funds specifically for information system enhancement, States to access the funds by grant application establishing need.

PREPARED STATEMENT OF DENNIS H. BACH, DIRECTOR, IOWA WIC PROGRAM, IOWA DEPARTMENT OF PUBLIC HEALTH, DES MOINES, IA

Mr. Chairman, members of the committee, thank you for the opportunity to address this committee on issues affecting the reauthorization of the Special Supplemental Food Program for Women, Infants and Children. My name is Dennis H. Bach, and I am the Director of the WIC Program for the State of Iowa, Department of Public Health. I wish to especially express our appreciation to Iowa's Senator Harkin for the leadership he has provided in the area of nutrition.

PARTICINATION LEVELS AND COST CONTAINMENT INITIATIVES

A recent Food and Nutrition Service study to determine the number of categorically eligible individuals who meet the income guidelines and are at nutritional risk came up with a figure of approximately 8 million people. The most recent news release from USDA listed current participation in the WIC Program at 4.1 million nationally. We have finally surpassed the 50 percent mark—barely. The increase in participation during the last several months was due almost entirely to the additional funds generated from infant formula rebates.

Considerable effort has been made in recent years to ensure that benefits are targeted toward those at highest risk, primarily pregnant women and infants. Research studies have indicated that WIC has the greatest impact on those who are at the greatest risk. However, a WIC infant who turns 1-year-old and is then called a child does not suddenly cease being at risk.

If the WIC Program has been successful in identifying and serving that child's mother when she was pregnant, and if the infant was breastfed or provided iron-fortified infant formula from WIC throughout the first year of life, then you should not expect to find overt problems, such as anemia, in that 1-year-old child. Under our current priority system that 1-year-old child would be placed in one of the lowest priority categories, and, in many States, would no longer be able to receive services because there are not enough funds to serve all priority categories.

At that stage in life, the toddler continues to need the iron-rich supplemental foods, the professional advice from the WIC nutritionist, and the encouragement for well child visits that WIC provides.

WIC is more than just supplemental foods. It is more that just the three services identified above. It is often a support system for young, fragile families. Recently, USDA has expressed concern about some of the nutrition risk criteria used in States, because they do not reflect conditions that can be "cured" with WIC foods. This concern misses the point. WIC is most effective as a preventative health program, rather than as a remedial one. We should be concerned with identifying and serving populations at risk of developing health problems, not just those that already have medical problems. This requires expanding the program to serve a larger share of the eligible population.

Recently, four separate reports have been issued which point out that adequately funding the WIC Program is a critical investment in our Nation's economic future. Two of these, *Reclaiming the American Dream: Fiscal Policies for a Competitive Nation,* by the Council on Competitiveness, and *Children in Need: Investment Strategies for the Educationally Disadvantaged,* by the Committee on Economic Development, represent the views of business and educational leaders. The *American Agenda,* a bipartisan effort headed by former Presidents Ford and Carter, and *Death Before Life: The Tragedy of Infant Mortality,* from the National Commission to Prevent Infant Mortality, make the same points: America's economic future depends on reducing the budget deficit, but it also depends on having an adequate supply of productive workers.

These reports state that fully funding the WIC Program is an essential step in ensuring that supply of workers. Although the recently passed joint budget resolution did not change WIC from a discretionary to a mandatory spending program, it did include an increase of $150 million over current services levels. The reauthorization legislation should authorize continued increases over the next 4 years, until the entire eligible population is able to be served.

The paramount issue affecting the operation of the WIC Program is the distribution between funds allocated for food costs and funds allocated for direct services. The latter are usually referred to as "administrative" funds. Costs for administration are included in this, but are a relatively small part. The great majority of these funds pay for the costs of operating local WIC clinics, primarily salary costs for the nutritionists, nurses, and clerks who staff the clinics, plus travel and supplies. The advent of infant formula rebates has heightened awareness of the underlying problem in the way funds are defined.

The distribution of funds between food and administration is defined as an 80 percent to 20 percent ratio. This creates an inherent disincentive to find ways to contain or reduce the average food package cost. As the food package cost is reduced, more individuals are able to be served. However, there are no additional funds available to pay the cost of doing health and nutrition assessments or nutrition education for the extra participants.

The WIC Program faces a critical issue. By the end of this year, virtually all of the States will have some type of cost containment initiative. It is estimated that once all States start receiving rebates, an additional 800,000 participants per month may be served. But there is no mechanism for *permanent* additional direct services funding.

USDA considers infant formula rebates to be a reduction in the cost of the food package, rather than program income. Public Law 99-237 allows a State to convert a portion of the rebates to administrative funds, but only for 1 year following implementation of the cost containment initiative. The process for calculating this "conversion authority" is overly complicated and cannot be done in a timely manner. It requires the use of figures provided by USDA as part of the funding formula. These figures are not available until months after the start of a fiscal year, making effective planning difficult.

A second piece of legislation, Public Law 100-356 implicitly recognizes the problems created by rebates and the existing 80/20 funding structure. This provision allows a State to convert some additional rebate dollars to administration to limit the *decrease* in administrative cost per participant to no more than 2 percent per year. However, the WIC Program simply cannot afford a decrease in administrative cost per participant each year.

A more logical and equitable allocation of funds would eliminate the food/administrative ratio altogether and index the cost of foods and the cost of direct services independently. A baseline must first be established for each type of cost. The FY 1987 food grant per person and administrative grant per person represent the most recent time period that was unaffected by rebates. The two types of cost should be indexed from this baseline point. The congressional Budget Office (CBO) should calculate the current services level separately each year for food and for direct services.

USDA's concept of considering rebate income as a reduction in food cost is technically accurate. But, since the level of rebate received is different for each State, it would be virtually impossible for CBO to factor in the effects of rebates in calculating current services levels. It would be much easier and more practical to define these funds as program income, and to allow a State to expend them at the same rates as they spend their grant funds. For example, if a State's food package is $30 and their administrative cost is $8, they should be able to spend their rebate funds at those rates.

BREASTFEEDING PROMOTION

An important goal of the WIC Program is the encouragement of breastfeeding. Although the incidence of breastfeeding has been increasing in recent years, it has increased at a lower rate among low income populations. If the WIC Program is going to have a significant effect in encouraging breastfeeding, it will take an effort beyond what can be done with the existing resources. Successful breastfeeding promotion is resource intensive.

The Iowa WIC Program has made breastfeeding promotion a high priority and has devoted significant effort and resources to this area. We have an extensive training program for the health professionals who will be working with WIC women. We provide them with both current information in the field and the skills necessary to use that information. The one thing we cannot provide is enough time to be effective. One 10 minute counseling session with a woman in a WIC clinic is not enough to influence her decision whether to breastfeed. It requires additional encouragement during her pregnancy plus followup support immediately after delivery and during the first critical days and weeks at home.

Breastfeeding is an economical alternative to formula feeding. Additional resources could be devoted to the encouragement of breastfeeding with a resulting net savings in overall cost to the program. It would be appropriate to allow States to use some of their food funds for this purpose. However, the mechanism developed for identifying these funds should be simple and straightforward. It would be easy to have the primary effect of this change be additional recordkeeping rather than additional efforts to promote breastfeeding.

ADEQUACY OF HEALTH ASSESSMENTS

The WIC Program is intended to serve as an adjunct to routine pediatric and obstetrical health care. You could change that to read "local health care" without changing the way WIC operates. The structure of the program, and the health care standards which are followed vary considerably from State to State. This is not a criticism but another example of the program's uniqueness.

In Iowa, for example, one of our priorities over the last several years has been to integrate WIC clinics with child health and maternal health clinics. A patient can receive a comprehensive child health exam and a WIC certification in the same visit. The child may receive a physical exam; hearing, vision and dental screening; nutrition counseling; and WIC food checks. The patient does not have to be concerned that there are two Federal programs jointly providing the services.

Because of our clinic level integration with Maternal and Child Health (MCH), we must closely coordinate the standards that each program establishes at the State level. We must also be aware of standards of care in the local medical community. For example, we have established hematocrit levels, based on Centers for Disease Control guidelines, which are used as a risk to qualify individuals for WIC. We use a somewhat lower level as a criteria for referral to a physician, based on what the physicians themselves prefer.

Our relationship with MCH and our health assessment standards are not necessarily the same as those found in other States. But, that does not mean that ours are better or worse. They were developed to make our services as accessible as possible to participants, and to use the other health resources available in Iowa the most effectively. It would be extremely difficult to legislate uniform structure or standards that would be appropriate nationwide.

Some of the Focus on Management Standards for nutrition services and caseload management address issues of quality in relation to health assessments. This approach—setting mutually determined, voluntary standards with Federal oversight—is more practical than legislation. Separately documenting the cost of administrative functions from the health assessment component would not control costs and maintain the quality of the health assessment. Rather, it would add to our recordkeeping requirements and increase our administrative costs.

SUPPLEMENTAL FOODS

The Secretary of Agriculture has the authority to determine the foods to be provided in the WIC food package. The original legislation specified that the food supplements should focus on high quality protein, iron, calcium, and vitamins C and A. The current legislation requires only foods containing "nutrients determined by nutritional researchers to be lacking in the diets" of the targeted population. The original food package developed in 1972 was based on food consumption data from the mid-1960's. With the addition of beans and peanut butter, and some modification of quantities, the WIC food package is the same now as when the program was first created.

Iowa recently completed development of a new, validated diet assessment tool. In developing this tool, we researched more recent food consumption data. One of our findings was that the nutrients in the current WIC food package may not be the most critical nutrients to supplement. There is research that indicates the nutrients that are low in the diets of the WIC population are iron, zinc, folacin, magnesium, calcium, and vitamins A and B6 (National Food Consumption Survey of 1977-78).

Our study was far from conclusive; rather it indicated a need to examine this issue further. USDA has expressed an interest in studying this question, and has asked us to assist in that effort. We believe there should be some changes in the WIC food package. However, changing the WIC food package is a major undertaking, and it would be premature to make changes without thoroughly studying the questions raised by any change.

We need to consider not only the nutrients that we should be providing, but also the management implications of adding or deleting foods. One suggestion has been to add ground beef in lieu of eggs. However, there is no standardization to the packaging or labeling of fresh meat. This makes ensuring vendor compliance much more difficult. With the exception of eggs, WIC foods are also ready to eat and do not require cooking facilities. Unless a change is "cost neutral" it will have an effect on the number of participants that can be served.

If language is added to the authorization bill specifying the foods that may be provided in the WIC food package, it will limit USDA's flexibility to make changes. We feel confident that the Federal program administrators will address this issue and that States will have adequate opportunity for input. We recommend not addressing this issue in legislation.

VENDOR MANAGEMENT

It would be foolish to argue that there is not some level of vendor abuse in the WIC Program. However, it is equally foolish to assume that both the level and type of abuse are the same in every State. The OIG report, and USDA's proposed response to their findings, seem to be based on that premise. Both the community standards and the profile of the "typical" WIC vendor vary dramatically from place to place. The OIG study found that inflating the cost of the food check was common in the vendors they investigated. These vendors were typically small, independent, inner city stores.

In Iowa, 80 percent of our food dollars are spent in large chain stores such as Hy-Vee, Fareway, and Super Valu. The likelihood of these stores engaging in this type of activity is very small. Yet, USDA is intending to require us to develop sophisticated, statistical analysis tools designed to identify this particular problem only. The resources devoted to this will detract from those available for other types of vendor monitoring and compliance activities.

This concludes my testimony. I would be happy to answer any questions. Again, thank you for the opportunity to share our views on the issues of importance to the WIC Program.

PREPARED STATEMENT OF C. RICHARD BLOUNT, MANAGER, SECTION OF FOOD AND NUTRITION SERVICES, MISSOURI DEPARTMENT OF HEALTH, JEFFERSON CITY, MO

EXECUTIVE SUMMARY

I have in my attached statement addressed the following issues, concerns and recommendations:

- The WIC verdict is in. A national jury has rendered an unimpeachable decision. WIC has been proven tremendously effective in combating women, infants and children health problems related to malnutrition.
- It has earned its right for mandatory funding at a level to achieve full participation for all who are eligible during the period of reauthorization beginning with a minimum appropriation of $2.158 billion for FY 90.
- The concerted effort by the individual States to assure cost containment of the food package must be continued as a compliment to increased funding but must not be viewed as a substitute for necessary appropriations.
- Experience has demonstrated that it is unsound to fix operational cost on a percent of food cost: operational costs must be determined by true unit cost for quality services to clients.
- Rebate funds should be distributed and reported between food and operational costs in the same manner as the basic grant funds.
- Cash-flow problems, particularly at the end of the fiscal year, should be remedied by authorizing borrowing from the following year against documented anticipated rebates with end of year adjustments for fiscal accountability.
- WIC and other related service programs should be coordinated where feasible permitting income eligibility for WIC based on income eligibility in any of the other income maintenance type programs.
- Specific limited funds for special State initiatives to achieve Focus on Management goals should be authorized.
- New or revised administrative requirements must be carefully assessed for their fiscal impact at the State level with possible tradeoffs being projected.
- Special funds should be set aside for the promotion of breastfeeding.
- The current food package is basically sound though special pilot projects may be justified for further evaluation.
- Integrity of the WIC Program is comparatively high among similar programs; though there must be continued strict monitoring sufficient safeguards are in place and "regulatory overkill" should be avoided.

PREPARED STATEMENT

Mr. Chairman, members of the committee, I am C. Richard Blount, manager of the Section of Food and Nutrition Services, of the Missouri Department of Health and chairman of the Task Force on Infant Formula Cost Containment of the National Association of WIC Directors. I appreciate this opportunity to discuss the Special Supplemental Food Program for Women, Infants and Children (WIC) as a part of the reauthorization of the Child Nutrition Act.

The WIC verdict is in. The case of WIC vs. Malnutrition has been presented and heard. The evidence was overwhelming. A national jury has rendered an unimpeachable decision. WIC has been proven tremendously effective in combating health problems related to malnutrition!

The National Commission to Prevent Infant Mortality, a blue ribbon panel chartered by Congress and chaired by former Senator Lawton Chiles states: "WIC is widely regarded as one of the Nation's most successful and cost-effective nutritional intervention programs. Any effort to reduce infant mortality and low birthweight will need to include a strong nutritional component, such as WIC."

The Committee for Economic Development, a group of more than 200 corporate executives and university presidents, noted that WIC produces a "reduction in infant mortality and of low birthweight infants."

The Council on Competitiveness, a group of corporate executives, education and labor leaders wrote: "Evaluation of the WIC program reveals that it reduces fetal deaths by one-third; reduces premature births among high-risk mothers by 15 to 25 percent; and shows increase brain growth and evidence of cognitive development among preschoolers who are WIC participants."

Two former Presidents, one from each of the two major political parties, Presidents Gerald Ford and Jimmy Carter, in presenting their *American Agenda* report, cited WIC as one of the highly effective programs for poor children. The two Presidents stated that despite the national budget deficit, the program must be expanded to serve all children eligible: "Spending public funds for these young Americans is not wasteful; it is wasteful *not* to invest in the medical attention . . . that will provide poor children a share in the American opportunity." "We understand the budget constraints on any expansion of Federal spending programs; but we believe that *it would be imprudent to delay any longer on taking Federal action* to begin the long process of assisting these children of poverty." "We recommend that you set a goal of full Federal funding for . . . WIC . . . within 8 years."

The State of Missouri, also, presented evidence documented by six separate statewide WIC evaluation studies. Some of the four earliest published studies were acclaimed by the GAO and recognized by Dr. David Rush, principle national WIC evaluator as of the highest quality and reliability. Each of the studies (two for 1980, two for 1982 and two for 1986) documented the positive difference preventive intervention made in pregnancy outcomes such as: birthweight was increased, the incident of low birthweight was reduced and there was an increase in the length of pregnancy toward full term. "For both white and nonwhite participants, the low birth rates were less than one-half of the rates for comparable non-WIC mothers."

Not only were these and other humanitarian outcomes documented, there were specific cost benefits documented—important data while facing austere budgets. In the most recent (yet to be published) evaluation, newborn Medicaid costs were lower for WIC participants than for non-WIC participants. Estimated Medicaid savings, within 60 days after birth, related to WIC participation amounted to $0.79 for every dollar spent on WIC. When all submitted medical charges were included (not just paid by Medicaid), then the savings were even larger. Nearly $2 ($1.97) in submitted medical costs were saved for every dollar spent on WIC.

The WIC verdict has ended the time and need for debate. WIC has been proven exceedingly effective. It is time to move forward. I wholeheartedly concur with the counsel of our two former Presidents: "IT WOULD BE IMPRUDENT TO DELAY ANY LONGER ON TAKING FEDERAL ACTION" to do what we can to assist the women, infants, and children in poverty during the critical period of birthing and early childhood development. Sixteen years after the program was so wisely launched by Congress, approximately one-half of those eligible for program benefits still are not being served. Adequate funding must be provided. Statutory and regulatory provisions must be defined for effective, efficient and economical administration of the program.

WIC, by the evidence presented, has earned its right for mandatory funding at a level to achieve full participation for all who are eligible during the period of reauthorization. At a minimum, that would mean $150 million new dollars over inflationary cost increases each year such as that called for in the budget resolution recently passed. I commend the 73 Senators, including our two distinguished Senators from Missouri, Senator Danforth and Senator Bond, who sent a letter to Senate Agriculture Appropriations Subcommittee Chairman Burdick on May 17 urging him to appropriate the full amount provided for in the budget resolution. They recognize that it is tremendously important to appropriate the funding approved in the budget resolution. However, during the past 3 years similar budget resolutions have not been fully funded through the appropriation process. I am confident that such failure to meet the intent of the budget resolutions in the past precipitated the caring action of the Senators signing the letter. Approximately 500,000 eligible participants were not served during the past 4 years because of the cumulative appropriation shortfall compared to previous budget resolution assumptions. This funding uncertainty from year to year, including frequent delayed budget appropriations, has severely limited long-term planning at the State level and has often contributed unnecessarily to erratic program growth. Mandatory appropriations each year would not increase the deficit if the Budget Committees would simply project increases such as they have in the past designating them "mandatory" rather than "discretionary." The time to begin is now by appropriating the full $2,158 billion contained in the current budget resolution as recommended by the 73 Senators who addressed the issue in their letter to Senator Burdick.

The level of new funding defined above still would not be adequate to serve all who are potentially eligible during the next 5 years. Current national participation is approximately only 4 million of the estimated 7 million who are potentially eligible. An additional annual $150 million new funding over current service load funding plus inflation would add approximately 300,000 annually or 1.5 million participants during the next 5 years. Thus, there would still be another 1.5 million unserved eligible clients 5 years from now.

Fortunately, individual States have participated in a concerted effort during the past 2 years to initiate infant formula cost containment programs, including the increasingly popular infant formula rebate program. As of May 30, 1989, 42 States and 1 Native American State agency had a cost containment program in effect. Nineteen States and the 1 Native American State agency had what is known as "open market" rebate systems; 18 had the "competitive bid" rebate system; 3 had modifications of the two systems; 2 had contracts for reduced price formula through home delivery contracts; and 1 provided direct commodity distribution at reduced costs. Of the remaining eight geographic States, seven have cost containment systems pending as well as two other Native American agencies. The highest rebate per 13 ounce can of concentrated iron-fortified formula to date is $1.45 under the California competitive bid system. The open market rebate amount has hovered around $0.979 per can though recent agreements tend to be less, around $0.93.

The Missouri WIC Program initiated an open market rebate system last July 1988. Based on current data, we anticipate earning an $8.3 million rebate during FY 1989 enabling us to serve an additional 14,243 clients monthly. Utilizing our full Federal grant, plus rebates, we currently are serving approximately 78,227 monthly: 11,165 prenatal women; 5,016 breastfeeding and those post partum women under 17 years of age at the time of conception; 27,007 infants and 35,039 children. Based on an estimated potential need of 172,817, we are only serving 45.3 percent of our potential: 58.8 percent of the prenatal; 30.4 percent of the breastfeeding and post partum; 89.6 percent of the infants and only 32.7 percent of the children. This data indicates how critically the preventive nature of the program has been compromised. The data of the "Show-Me" State shows fairly accurately a mirror image of the national picture.

Based on current experience and a national commitment for full funding during the period of reauthorization, it should be clear to everyone that *both* mandatory increased appropriations and infant formula rebates must be sustained. It is a critical error to expect rebates to substitute for direct appropriations. A transfer of funding source at best only maintains status quo. We must be aware of the grave consequences if either or both Federal and State appropriations become fixed or even reduced based on anticipated rebates as has already happened in some States and as recommended by USDA. We must not depend on necessary future expansion being adequately provided for through rebates alone. Likewise, maintaining program stability with orderly growth is too important to be left to the marketing response of an industry responsible to its stockholders rather than the welfare of the public.

There are other related concerns which need constant monitoring with possible intervention. Considerable inequities in the amount of rebates without additional appropriations could create hardships on the smaller States as larger amounts of annual appropriations are used to maintain new higher levels of stability funding established by the influx of the larger rebates. Already we are confronted with a dilemma inasmuch as only 1 Native American State agency has a rebate system with 2 more pending out of a total of 33 Native American agencies. The national WIC community must ensure that the full rights of the smallest agency are protected from deprivation by action favoring the larger agencies. Furthermore, we must be vigilant to ensure that savings earned from the infant formula rebates are not eroded by unjust cost increases by the cereal industry or any other component in the food package.

Cost containment rebates have intensified the need to make statutory revisions regarding the distribution of funds. Experience has demonstrated that it is unsound to fix operational cost based on food cost. Over a period of time there are significant differences in the rate of inflation related to food and operations, the latter dominated by personnel cost. More importantly there is a built-in disincentive for breastfeeding and food package tailoring which significantly lowers food costs while requiring a higher level of personnel involvement. Operational costs based on food costs do not permit compensation for the cost of nutrition risk assessment nor processing of those who are determined ineligible and thus receive no food package.

To assure the desired quality of service to the client, operational costs must be determined by true costs of service to each client regardless of food consumption or inequities in food costs, the latter encouraging a higher food cost package. The reauthorized legislation should provide for a reasonable baseline unit cost with inflationary adjustments apart from the current fixed 80-20 split of the total grant.

As USDA has sought to maintain the initial 80-20 balance, they have developed an unnecessarily complex formula to account for the use of rebate monies. The more efficient and effective management of rebates would be authorization to distribute and report the rebate monies in the same manner as funds from the original grants using the defined unit cost for operations.

A real, though lesser, problem involves cash-flow. Due to rebate payments following disbursements, there is a cash-flow problem at the State level especially at the end of the fiscal year. This could be remedied by authorizing States to borrow from the following year an amount equal to the documented anticipated rebate which would be used to repay the short term loan with proper close-out adjustments to maintain fiscal year accountability.

To ensure maximum participation at the most reasonable unit cost, legislation and regulations should encourage and facilitate coordination among WIC and other related service programs. For instance, eligibility criteria, while recognizing the difference between health risk and income maintenance-type programs could at least develop common income eligibility criteria. Currently, Medicaid counts the prenatal woman as two in determining household size whereas USDA counts her as one. Income eligibility in any of the income maintenance type programs should be acceptable for income eligibility in the WIC Program leaving only the nutritional risk factor to be further defined.

State agencies having committed themselves to the high standards of the USDA-NAWD developed Focus on Management find themselves limited in achieving some of their justifiable management goals due to the lack of special funding for one time costs. This could be partially ameliorated by legislative action setting aside funds for special State initiatives.

A project which we have finally developed in Missouri is a case in point.

HEALTH AGENCIES NETWORK DATA SYSTEM, "HANDS," is an electronic data system project of the Missouri Department of Health. The statewide project has been designed to link all public health agencies and many allied health agencies through a mainframe computer at the State center with personal computers and printers located in each of the public health offices throughout the State connected by dedicated direct lines. The data bank and software systems are under central office jurisdiction. The local agency personal computers are used for data entry and to provide access to mainframe data as needed at the local agency within defined areas of authorization.

The extraordinary feature of the system is its utilization of an interdepartmental common number (IDCN) for individual client identification. The same IDCN is used by the Department of Social Services enabling the linkage of client health records with Medicaid and other social service records providing a comprehensive client profile. The system provides common client demographic data, common health data with subset system data for specific categorical programs, such as: prenatal; Women, Infants and Children's Supplemental Food Program (WIC); child health; immunization; etc. plus the client's social service status. Future expansion of the program could encompass all of the public health programs.

The utilization of the IDCN capability provides management an effective tool for integrating and targeting client services throughout the network. As an example, a potential WIC client could go to an appropriate local WIC agency in the network to receive services. The local agency using the HANDS system could determine the client's current Medicaid status as well as other program benefits being received by the client or for which the client would be eligible. Conversely, the WIC Program could determine from the active Medicaid prenatal clientele all Medicaid prenatal women not enrolled in WIC who were income eligible that they might individually be targeted for nutrition risk evaluation to determine WIC eligibility. Once the client is enrolled anywhere in the system, she/he can be tracked for participation in all systems.

Network sharing and integration of data facilitates comprehensive, coordinated integration of health care services for the client. The quality of data captured is improved with a reduction in redundant data and duplication of effort. Time delays are eliminated in providing some services as clients are more easily entered into other allied programs in the network. More effective monitoring of the client is possible through the individual client computer data files, including authorized electronic transfer of client file between participating agencies.

The HANDS Project was conceived about 8 years ago initially as a means to more effectively manage the rapidly growing WIC Program. Since its conception, it evolved through many studies including both central and local health agency personnel. Project feasibility, needs definition and advanced planning documents were all completed by 1984. It was approved by the department director and all divisional directors at that time. However, lack of funding because WIC funding for such special projects was radically cut or eliminated which caused the estimated $1.5 million project to be put on hold. It was only after other start-up funding was finally authorized through other sources that the project was taken off the shelf, though WIC will be the major beneficiary of the project requiring approximately 80 percent of its support services. Thus, what has now become a model system for national utilization by the WIC community and public health generally to ensure the highest level of program coordination and outreach was delayed in its development by at least 3 or 4 years for lack of special funding for one time costs.

Currently, the interdepartmental common number and data system has been perfected, plus screens for common health data and specific prenatal subset data. During the pat year, all of the above systems were piloted and implemented in nine local health agency prenatal clinics. Additional prenatal clinics are now entering the network. The WIC subset software is being developed.

Beginning October 1989 there will be approximately 40 prenatal clinics and WIC local agencies in the network connected by dedicated lines. The network is scheduled to be statewide, linking all 114 counties and the city of St. Louis by October 1, 1990. Had special State initiative WIC funds been available for such a project, it could have been operational enhancing the WIC Program 3 or 4 years earlier.

Inevitably there are changing administrative requirements in a dynamic program such as WIC. However, required regulatory changes must be carefully assessed as to their impact on already minimum operational funding. States cannot continue to absorb new administrative costs without eroding the quality of client services. Therefore, USDA should be directed to justify regulatory revisions to the extent that if operational funding is not going to be increased, the desired changes and accompanying costs must be off-set by reducing other existing regulatory costs.

Finally, we must consider the special need for promoting breastfeeding. The advantages of breastfeeding for infant health are not debatable. However, the incidence of breastfeeding among low income and minority women remains low. In Missouri, 48 percent of all newborn are breastfed at the time of hospital discharge. Unfortunately, only 22 percent of newborn WIC infants are breastfed at hospital discharge, less than half the percentage of the total newborn population. Approximately 50 percent of WIC mothers breastfeeding at hospital discharge continue breastfeeding for 3 months with 24 percent continuing through 6 months. I heartily endorse the National Association of WIC Directors' request to specifically earmark a reasonable appropriation to promote breastfeeding.

I am advised by my staff nutritionists that the current food package is basically sound. However, as some have suggested, there may be value in piloting other food packages in specific areas to better determine acceptability based on available nutrient value, cost-effectiveness and client response. Some questions have been raised concerning the utilization of Carnation's new product "Good Nature". It is not currently being issued in Missouri and we believe its impact nationally will be negligible.

The integrity of the WIC Program is comparatively high among similar programs. Missouri was included in the last national audit of vendor monitoring and control of food instruments completed in August 1988. Though we learned of some deficiencies in our systems, which basically have been or are being corrected, there was no evidence of major abuse. The summary of vendor violations in that audit, based on compliance shopping in selected high risk vendor stores, reported a specific total overclaim of $84.70 with a total underclaim of $12.03 based on 54 "compliance-buy vouchers" redeemed through 18 different vendors in the metropolitan St. Louis area. We strive for excellence and welcome audits that help us identify areas wherein we can improve our program. We are not happy with any deficiency. We recognize that there are specific problems in the marketplace from time to time. However, I believe that there are current safeguards in the national WIC regulations and management procedures to address such deficiencies. We must guard against the temptation to provide an overkill in vendor regulations which could easily create a national program cost disproportionate to the risk.

[The prepared material of Minda Lazarov, the article "Breastfeeding" SPRANS Abstracts FY 1989 submitted by David Heppel, and prepared statements of Dr. Weaver and Dr. Hendrich follow:]

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF HEALTH SERVICES
ONE HUNDRED 9TH AVENUE, NORTH
NASHVILLE, TENNESSEE 37219-5405

TESTIMONY OF MINDA LAZAROV
DIRECTOR, TENNESSEE BREASTFEEDING PROMOTION PROJECT
before the
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS
of the
SENATE COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY

June 15, 1989

Thank you Senator Harkin and members of the Subcommittee on Nutrition for the opportunity to address you today regarding the reauthorization of the WIC Program.

I am Minda Lazarov. As a WIC nutritionist for the past 11 years on both the local and state levels in Tennessee, I can speak from first hand experience that WIC works.

Currently, I am Director of the Tennessee Breastfeeding Promotion Project and Chair of the National Committee on Improving Breastfeeding Promotion Strategies in the WIC Program. I am here today to address the need for designated funds for breastfeeding promotion in WIC.

There are two ways to feed a baby: breastfeeding and formula feeding. Currently, the WIC Program puts nearly all of its infant feeding resources into formula feeding, despite the fact that virtually all health and nutrition authorities agree that breastfeeding is the preferred method of infant feeding.(1-5) The United States Department of Agriculture's Food and Nutrition Service estimates that in Fiscal Year 1988, the WIC Program spent over five hundred million dollars on infant formula.(6) This represents about 37 percent of all funds spent on WIC foods that year.

In 1983, the U.S. Department of Health and Human Services (DHHS) gave public health professionals a challenge by identifying breastfeeding promotion as a high priority national health objective. The challenge was clear: By 1990, increase the proportion of women who breastfeed their babies to 75% at hospital discharge and 35 percent six months following delivery.(7) The incidence of breastfeeding for women not on the WIC Program is within reach of this 1990 goal. However, as the table below shows, the breastfeeding rates of WIC mothers lag far behind those of other mothers in the nation.(8)

U.S. Breastfeeding Rates

	1990 Goal	Non-WIC	WIC
At hospital discharge:	75%	64%	36%
At 6 months	35%	25%	9%

Source: Ross Laboratories[3]

Note: These figures are considered an inflated estimate of true breastfeeding rates. Nevertheless, because Ross surveys are conducted the same way each year, they can be used as a measure of trends -- assuming that the bias would be constant throughout. (See endnote #8 for more information.) Unfortunately, there are very little national data on breastfeeding rates in the WIC program outside of the Ross data.

Why does the incidence of breastfeeding among WIC women continue to remain low, year after year, while the majority of middle and upper income women choose to breastfeed their babies? Numerous studies have been done to identify the reasons for this discrepancy. These investigations revealed there are several sociological and psychological barriers to breastfeeding, as well as obstacles in our health care system, that must be overcome, before a low income woman can make a truly informed choice regarding the method of feeding her baby.(9-18) These barriers include:

- common misconceptions and concerns regarding breastfeeding
- lack of support from family and friends
- lack of supportive and knowledgeable health care providers
- inappropriate hospital practices

The common profile of the pregnant WIC participant can be described as follows:

> She says she wants to do what is best for her baby and, in fact, knows the "breast is best." However, she is afraid breastfeeding will "spoil" her baby. She does not want to be tied down and wants to be assured she can quickly return to her pre-delivery schedule. She feels extremely uncomfortable about nursing in public and is totally unaware that she could breastfeed after returning to school or work. She has heard she won't be able to eat certain foods and her mother has been telling her she won't be able to make enough milk. In general, she just feels uncomfortable with the whole idea, as she views her breasts as a sexual object rather than a functional organ that could offer her and her baby numerous emotional, physical and economical advantages. Once in the hospital, she may be separated from the baby and will be given little, if any, assistance for initiating breastfeeding. She will be sent home from the hospital with a discharge pack, including free infant formula.

> In contrast, the affluent expectant mother more fully understands the importance of nurturing her new baby and, therefore, is committed to breastfeeding as the first step in fostering trust and self esteem in her child. She has friends who have breastfed, and have helped build her confidence that she can breastfeed successfully. Most likely, her hospital will have knowledgeable staff to assist her with breastfeeding her newborn after delivery, and she has the confidence to question any hospital practices which are interfering with the successful establishment of breastfeeding. Once she is discharged from the hospital, she has a supportive husband at home and supportive friends in her community. If she returns to work, she knows she can still breastfeed and cherishes the opportunity to be able to keep that special closeness with her baby even after returning to work. Although she may be given a complimentary infant formula discharge pack in the hospital, there will be no more free supplies of infant formula once she is discharged.

The differences between economically disadvantaged WIC women and the more affluent women in our society are numerous. And although every woman participating in the WIC Program will not have all of these (and other) barriers to breastfeeding, they usually will have multiple concerns which must be addressed in a timely manner before she can establish a sincere commitment to breastfeeding.

In the last six years, USDA and USDHHS have invested a total of more than six million dollars in breastfeeding promotion research, training and demonstration projects to determine effective strategies for overcoming these barriers. These studies have found that more women breastfeed their babies when the following activities are provided (19-30):

* individual counseling
* peer group discussions
* in-service training for professional staff
* postpartum support through hospital and clinic visits and phone consultation
* networking with DHHS and other non-WIC health care providers

In other words, when thoughtful, coordinated efforts are made to inform and support pregnant and breastfeeding mothers, more women choose to breastfeed, and to breastfeed longer.

I have seen such an effort in Tennessee in an area where the rates of breastfeeding are among the lowest in the country---a primarily black, rural population in Fayette County near Memphis, Tennessee, where there was virtually no support for breastfeeding in the local community health care sector. Through an effective model involving peer support and community health care providers, we have more than doubled the rate of breastfeeding in 1-1/2 years and the rates are still on the rise. An interesting observation I have made in this project, is a marked increase in self esteem among WIC mothers who have made this hard decision to breastfeed. This improvement in self-esteem translates into greater self motivation for improving their own health and the health of their baby. They become more receptive to the WIC nutrition teaching and appropriate parenting skills. In talking with other health professionals working with similar breastfeeding promotion projects, I have found they are observing the same phenomena.

Due to the well documented nutritional, immunological, anti-allergenic and emotional benefits of breastfeeding, WIC health care professionals have been and continue to be committed to the education and support of breastfeeding. In fact, the WIC regulations state that all pregnant participants shall be encouraged to breastfeed unless contraindicated for health reasons.(31) However, health professionals and administrators working with the WIC Program have found it very difficult to obtain the resources to effectively promote breastfeeding among WIC participants. The national limit on administrative dollars has prevented greater funding for breastfeeding promotion in WIC. The allocation of 80% of the WIC dollars for food has made significantly more food dollars available for formula than administrative dollars available for breastfeeding promotion.

It is estimated that the average time spent in a WIC nutrition education session is about 16 minutes.(32) During a woman's pregnancy -- when breastfeeding promotion is conducted -- the WIC mother usually is offered two of these education sessions. In this limited time the WIC mother is to receive: education about her health risks; explanation of the use of WIC foods; suggestions on how to purchase foods economically; recommendations for improving her diet; and referrals to other programs as needed. With the appropriate resources, the WIC nutritionists and other staff could help provide adequate information, encouragement and support so that more WIC mothers would choose to breastfeed their babies.

Through the numerous research efforts over the past few years, we know breastfeeding promotional methods work in a variety of WIC settings if sufficient funding is provided to implement these activities. It is time to take the knowledge gained from these studies by putting these findings into practice.

This can be accomplished by designating funding specifically for breastfeeding education and support in the 1989 WIC reauthorization legislation. The National Committee on Improving Breastfeeding Promotion Strategies in the WIC Program, an organization with representatives from over 25 professional, government and food advocacy groups who have joined forces to address the low rates of breastfeeding among WIC women, has proposed an initial annual funding level of $10.00 per woman served by the Program, or eight million dollars nationally. This amount is only approximately 3% of the dollars we project will be spent on infant formula next year. These funds would be distributed to each WIC state agency according to their caseload of pregnant and breastfeeding women to establish well-designed and effective breastfeeding promotional programs.

By increasing the number of WIC women who choose to breastfeed, this investment will most likely, over the long run, save money. For example, in 1988, a breastfed baby in the Tennessee WIC Program cost about $30.00 less to feed in the first month of life than a formula fed baby.(33) Savings vary by state according to infant formula rebates and program certification policies. But, based on the Tennessee experience, nationally, in 1988, it is estimated that at least $30 million was spent to purchase formula for WIC babies for just the first month of life.(34) Even after the savings from the current larger infant formula rebates of 1989 are considered, in the long run, breastfeeding is still cheaper than formula. In addition, we do not know how long the WIC Program will benefit from these infant formula rebates. We need to be prepared with other cost containment systems that we can count on in the long run should the current rebates no longer be available. I think breastfeeding has that potential.

Increased rates of breastfeeding among WIC women and infants also could result in significant savings for other federal programs. Decreased hospital costs and pediatric visits from gastrointestinal infections, otitis media (or ear infections), formula intolerance, allergies, and baby bottle tooth decay could make available millions of Medicaid dollars for other needed services.(35)

Breastfeeding also can save lives. Until recently, infant mortality from diarrhea was considered to be primarily a "third world" problem. However, a recent article in the Journal of the American Medical Association indicated that over 500 deaths from diarrhea occurred in the U.S. among children aged 1 month to 4 years from 1973 to 1983.(36) Most of these deaths occurred among children from high risk, low income families like those that participate in WIC. Almost 90% of these deaths occurred between ages 1 month to 6 months. Dr. Sandy Huffman, from the Center to Prevent Childhood Malnutrition, emphasized in her recent testimony to the Senate Select Committee on Hunger, that it is during this time period of early infancy when the immunological and other anti-infective properties of breastmilk have been shown to have the most significant protective effect on decreased diarrheal mortality and morbidity.(37)

With these potential sources of cost containment for both the WIC Program and Medicaid, and the documented benefits for the respective recipients, I urge you to consider eight million dollars annually in the WIC reauthorization for breastfeeding promotion efforts.

I also would like to strongly encourage you to include in the legislation two additional components: 1) a national evaluation component to monitor and evaulate the use of such funds and 2) a provision that USDA make available, through grant or contract, assistance to the state WIC agencies for the development and implementation of effective program plans which meet the local needs of the WIC target population and which assure the state plans are nationally coordinated with no duplication of efforts.

In conclusion, breastfeeding is better for infants for its nutritional, immunological, anti-allergenic and emotional benefits.

Breastfeeding is better for parents as it fosters a more nurturing relationship with the infant, and helps establish a stronger sense of responsibility for the health of their family.

Breastfeeding is better for the WIC Program because it is cheaper than infant formula and guarantees a simple, but long term mechanism for cost containment.

It is time for breastfeeding to become the preferred food delivery system for WIC infants.

National Committee on Improving Promotion Strategies in the WIC Program

The organizations represented on this Committee include:

Action for Corporate Accountability

American Academy of Pediatrics

American College of Obstetricians and Gynecologists

American College of Nurse Midwives

American Dietetic Association

American Hospital Association

American Public Health Association

Bread for the World

Center on Budget and Policy Priorities

Food Research and Action Center

International Lactation Consultants Association

La Leche League

National Association of WIC Directors (NAWD)

Nurses Association of the American College of Obstetricians and Gynecologists

Eleven state and local WIC agencies

Liaisions for the national offices of USDHHS and USDA

11

REFERENCES

1. American Public Health Association Policy Statement (1981) Infant Feeding in the United States. American Journal of Public Helath 71:207.

2. American College of Obstetricians and Gyneologists and American Academy of Pediatrics (1988) Guidelines for Perinatal Care.

3. American Academy of Pediatrics (1982) "The Promotion of Breastfeeding", Pediatrics 69: 654.

4. American Dietetics Association (1986) "Position of the American Dietetic Association: Promotion of Breastfeeding". Journal of American Dietetic Association 86: 1580.

5. National Association of Pediataric Nurse Associates and Practitioners (1981) Position Statement of Breastfeeding.

6. Food and Nutrition Service, United States Department of Agriculture, Response to Request, January 13, 1989.

7. U.S. Department of Health and Human Services (1983) Promoting Health/Preventing Disease, Public Health Implementation Plans for Attaining Objectives for the National. Public Health Services, Washington, D.C.

8. Martinez, G. (1988) Mothers Infant Feeding Survey. Ross Laboratories, Marketing Research Division, Columbus, Ohio. (Unpublished.) Note: Ross has the most complete data set on frequency and duration of breastfeeding in the United States, but it is based on a survey with a fairly low response rate. Consequently, the results may be biased toward those mothers with the greatest commitment to breastfeeding, because they may be the ones most likely to respond to the survey. This is why many breastfeeding researchers believe Ross figures to be over estimates.

9. Barron, S.P. et al. (1988) Factors Influencing Duration of Breastfeeding Among Low-Income Women. Journal of American Dietetic Association.

10. Alden J. (1983) Promotion of Breastfeeding Among a Southern Rural Low Income Population. In: Helping Mothers to Breastfeed - Program Strategies for Minority Communities (Gusseler, J.D. and Bryant, C.A., eds.) Health Action Papers, Lexington, KY. 61.

11. University of Georgia Center for Continuing Education, et al. (1986) Proceedings of Regional Nutrition Conference - Building Support Networks for Breastfeeding, Atlanta, GA.

12. Bryant, C. et al. (1989) Best Start: Breastfeeding Promotion in the Southeast - A Program Brief of the Southeast Regional Breastfeeding Promotion Project. Lexington-Fayette County Health Department, Lexington, KY (unpublished).

13. Loughlin, H.H., N.W. Clapp-Channing, S.H. Gehlbach, J.C. Pollard, and T.M. McCutchen (1985) Early Termination of Breastfeeding: Identifying Those at Risk. *Pediatr.* 75:508-513.

14. Lawrence, R.A. (1982) Practices and Attitudes Toward Breastfeeding Among Medical Professionals. *Pediatr*. 70:912-902.

15. Hally, M.R., J. Bond, J. Crawley, B. Gregson, P. Philips, and I. Russell (1984) What Influences a Mother's Choice of Infant-feeding Method? *Nursing Times* 80:65-68.

16. Elander, G. and T. Lindberg (1984) Short Mother-infant Separation during the First week of Life Influences the Duration of Breastfeeding. *Acta Paediatr. Scan.* 73:237-240.

17. Ekwo, E.E., L. Dusdiker, B. Booth, and B. Seals (1984) Psychological Factors Influencing the Duration of Breastfeeding by Primagravidas. *Acta Paediatar*. *Scand.* 73:241-247.

18. Auerbach, K.G. (1984) The Influence of Lactation Consultant Contact on Breastfeeding Duration in a Low-income Population. *Nebraska Medical Journal* Sept., 341-346.

19. Kasten, I. (1989) Breastfeeding Promotion Project. In: *SPRANS Breastfeeding Abstracts FY 1989*, Office of Maternal and Child Health, USDHHS, Rockville, M.D.

20. Grossman, L. (1989) Breastfeeding Promotion in a Low-Income Urban Population. In: *SPRANS Breastfeeding Abstracts FY 1989*, Office of Maternal and Child Health, USDHHS, Rockville, MD.

21. Bradley, R. (1989) Model Approach to Development of Breastfeeding as a Subspecialty Integrated with Private Sector Maternal Health Care. In: *SPRANS Breastfeeding Abstracts FY 1989*, Office of Maternal and Child Health, USDHHS, Rockville, MD.

22. Burger, J. (1989) Almeda County Infant Feeding Project. In: *SPRANS Breastfeeding Abstracts FY 1989*, Office of Maternal and Child Health, USDHHS, Rockville, MD.

23. Lazarov, M. (1989) Tennessee Breastfeeding Promotion Project. In: *SPRANS Breastfeeding Abstracts FY 1989*, Office of Maternal and Child Health, USDHHS, Rockville, MD. (results not yet published)

24. Alden, J.E. (1984) Breastfeeding: Promotion in Three Rural Indigent Populations. In: *Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation*, pp. 43-44. USDHHS, Public Health Service, DHHS Pub No. HRS - D - MC 84-2.

25. Thompson, E.B. and P.B. Rieley (1981). Toward Increased Breastfeeding: WIC as the Coordinating Agency. WIC Currents 7,9

26. Koop, C.E., and M.E. Brannon (1984) Breastfeeding - the Community Norm: Report of a Workshop. *Public Health Reports* 99:550-558, 1984.

27. Arango, J.O. Promoting Breastfeeding: A National Perspective. Public Health Reports, 559-565.

28. Reiff, M.I. and S.M. Essock-Vitale, Hospital Influences on Early Infant Feeding Practices. Pediatr. 76:872-879, 1985.

29. Dusdieker, L.B., B.M. Booth, B.F. Seals, and E.E. Ekwo. Investigation of a Model for the Initiation of Breastfeeding in Primagravida Women. Soc. Sci. Med. 20:695-703, 1985.

30 Auerbach, K.G. Employed Breastfeeding Mothers: Problems They Encounter. Birth. 11:17-20, 1984.

31. 7 C.F.R., Part 246.11 (e) (1).

32. USDA, (1986) Report on WIC Nutrition Education Services.

33. Figure obtained from the Tennessee WIC Program. The average cost of the infant formula package in 1988, for the first month of life, was $30.39.

34. Determined from data provided by Response to Request, from FNS, January 13, 1989. Infant WIC participation in FY 1988 was 1,095,573.

35. Wirtz. S. and Lazarov, M. (1989) The Health and Cost Benefits of Breastfeeding: A Case for Additional Breastfeeding Promotion Funds in the 1989 WIC reauthorization. (abstract accepted for presentation at the 1989 Annual Meeting of the American Public Health Association in October).

36. Ho, M., et al. (1989) Diarrheal Deaths in American Children. J. Am. Medical Ass., 260, 3281.

37. Huffman, S. (1989) Breastfeeding Promotion: Lessons from Developing Countries. Testimony presented to the Select Committee on Hunger. April 26, 1989.

ML/C5059158/WIC

OVERVIEW OF EFFECTIVE BREASTFEEDING PROMOTION PROGRAMS FOR LOW INCOME WOMEN

Author/Target Group	Results			Program Strategies[1]
1. Kasten, I. (1989)		Site 1		. prenatal assessments and counseling
		Initiated Breastfeeding (%)	3 Mos. (%)	
Low income women in Seattle King County, Washington	Pre-project	8	2	. hospital, home & clinic postpartum support
	Post-intervention	27	8	. networking with community health care providers
		Site 2		
		Initiated Breastfeeding (%)	3 Mos. (%)	
	Pre-project	28	9	
	Post-intervention	52	22	
2. Grossman, L.K. (1989)	Initiated Breastfeeding (%)			. prenatal assessment and counseling
Low income women receiving prenatal care in Univ. Hospital in Columbus, Ohio	Control Gp	19		. peer support system in hospital and phone support
	Intervention Gp without peer counselors	40		
	Intervention Gp with peer counselors	69		
3. Bradley, R. (1989)	Initiated Breastfeeding (%)			. prenatal assessment and postpartum counseling
Women receiving both private and/or public prenatal care in Montana (all SES groups)	Control Gp	62		. networking with community health care providers
	Intervention Gp	86		
4. Burger, J. (1989)	Initiated Breastfeeding (%)		3 Wks. (%)	. prenatal assessment and counseling
Low income women delivering in public county hospital in Almeda, California	Pre-project	48	NA	. home or phone postpartum support
	Post-intervention	73	37	. networking with community health care providers
5. Lazarov, M. (1989)	Initiated Breastfeeding (%)		6 Wks. (%)	. prenatal assessment and counseling
WIC women in rural Tennessee	Pre-project	17	5	. hospital, home, clinic and phone postpartum support
	Post-intervention	35	19	. networking with community health care providers
				. patient incentives

[1] All programs included staff training on providing breastfeeding education and support.

Author/Target Group	Results					Program Strategies
6. Auerbach, K.G. (1985)	8-12 wks (%)				4 Mos. (%)	. postpartum support
	Control Group	50			68	
WIC Women in Nebraska	Intervention Group	89			NA	
7. U.S. Dept. Health & Human Services	Initiated Breastfeeding (%)			6 Wks. (%)	4 Mos. (%)	. peer counselor program . patient incentives . networking with community health care providers
WIC women in Arizona	Pre-project	23		NA	NA	
Indian Reservation	Post-intervention	59		50	38	
8. Thompson, E.B. and Reiley, P.B. (1981)	Initiating Breastfeeding (%)					. prenatal assessment and counseling . networking with community health care providers.
	Pre-project	29				
WIC women in Vermont	Post-intervention	38				
9. Alden, J. (1983)	Initiated Breastfeeding (%)			4 Wks. (%)	4 Mos. (%)	. prenatal assessment and counseling . post-partum hospital, home and clinic support
	Intervention Gp		Intervention Gp	Intervention Gp	Intervention Gp	
Low income women in public	Pre-Project	41	43	33	0	
health prenatal program in	1979	77	49	75	33	
Florida	1980	87	57	NA	48	

---

[1] All programs included staff training on providing breastfeeding education and support.

ML/C2039055/WIC

Literature Cited

1. Kasten, I. (1989) Breastfeeding Promotion Project. In: SPRANS Breastfeeding Abstracts FY 1989, Office of Maternal and Child Health, USDHHS, Rockville, MD.

2. Grossman, L (1989) Breastfeeding Promotion in a Low-Income Urban Population. In: SPRANS Breastfeeding Abstracts FY 1989, Office of Maternal and Child Health, USDHHS, Rockville, MD.

3. Bradley, R. (1989) Model Approach to Development of Breastfeeding as a Subspecialty Integrated with Private Sector Maternal Health Care. In: SPRANS Breastfeeding Abstracts FY 1989, Office of Maternal and Child Health, USDHHS, Rockville, MD.

4. Burger, J. (1989) Almeda Carby Infant Feeding Project. In: SPRANS Breastfeeding Abstracts FY 1989, Office of Maternal and Child Health, USDHHS, Rockville, MD.

5. Lazarov, M. (1989) Tennessee Breastfeeding Promotion Project. In: SPRANS Breastfeeding Abstracts FY 1989, Office of Maternal and Child Health, USDHHS, Rockville, MD. (results not yet published)

6. Auerbach, K.G. (1985) The Influence of Lactation Consultant Contact on Breastfeeding Duration in a Low-Income Population. Nebraska Medical Journal Sept. 341.

7. Alden, J.E. (1984) Breastfeeding: Promotion in Three Rural Indigent Populations. In: Report of the Surgeon General's Workshop on Breastfeeding and Human Lactation, pp. 43-44. USDHHS, Public Health Service, DHHS Pub No. HRS - D - MC 84-2.

8. Thompson, E.B., and P.B. Rieley (1981). Toward Increased Breastfeeding: WIC as the Coordinating Agency. WIC Currents 7,9

9. Alden, J. (1983) Promotion of Breastfeeding - Among a Southern Rural Low Income Population. In: Helping Mothers to Breastfeed - Program Strategies for Minority Communities. Health Action Papers, Lexington, KY, 61.

ML/C2069059/WIC

Cost of Breastfeeding Promotion Programs: Three Models

The breastfeeding promotion initiative proposed by the National Committee on Improving Breastfeeding Promotion Strategies in the WIC Program costs $10 per woman. In FY 1988, there were about 800,000 women in the program. Based on this figure, we project a cost of $8 million dollars per year.

We have presented two models (the third model is a combination of the first two) for breastfeeding promotion. The first costs $10 per woman. The second costs up to $50 per woman. The average cost of effective breastfeeding programs is fifty dollars per woman.[1] Most of these programs are located in areas with many barriers, and little community support for breastfeeding. In areas with strong community support for breastfeeding, the cost of promoting breastfeeding would not be as great.
We analyzed the budgets of successful breastfeeding promotion programs. Based on these data, we have made the suggestions below on how the funds might be spent by the WIC state agencies. Each WIC agency will have to examine their community (attitudes/behaviors of physicians, hospital staff and other health care staff, as well as family and peer support) to assess existing barriers and level of support for breastfeeding. With this information they can determine the promotional model which best meets their needs.

1) **Model A: $10 per Woman**

*2) **Model B: Up to $50 per Woman**

*3) **Combination of Models**

* State agencies with extensive barriers may choose to concentrate their funds in selected sites or obtain additional funds from the state agency or private funding source.

---

[1] Based on a survey of cost-effectiveness of ten sites with effective breastfeeding promotion programs.

MODEL A: $10 Per Woman

I. **Budget**: $20,000; Clinic Prenatal Caseload = 2,000

- A. Personnel
  - 1. Coordinator/Lactation Consultant .40% FTE x $22,000 = $8,800/year
  - 2. Four Peer Counselors @ $4.50 per hour x 16 hours/week x 3 = $10,300/year
- B. Operating Costs
  - 1. Educational Materials $ 900

II. Activities/People Served

- A. Weekly Activities and Staff Allocation
  - 1. Coordinator (16 hrs/week)
    - a. Community activities: health professional training; talk shows; meetings with hospital personnel — 5 hours
    - b. Peer Counselor Supervision and Training — 5 hours
    - c. Lactation, Consultation via Phone and Clinic Contacts (8 people at 30 minutes each) — 4 hours
    - d. Administration — 2 hours
  - 2. Peer Counselors (3 @ 16 hours/week)
    - a. Initial Prenatal Assessment and Counseling (40 people at 15 minutes each) — 10 hours
    - b. Follow-up Counseling for Women Undecided About Breastfeeding or Planning to Breastfeed (30 people at 15 minutes each) — 7.5 hours
    - c. Prenatal Breastfeeding Discussion Group (15 women per group; offer 2 groups per week) — 2 hours
    - d. Postpartum Problem Identification, Support and Referral (home visits; phone calls; clinic contacts) — 24 hours
    - e. Postpartum Support ~~Group~~ (10 women per group/1 group per month) — 1.5 hours
    - f. Administrative (record keeping) — 3 hours

B. Yearly Encounters (per 48 weeks)

1.	Initial Prenatal Assessment and Counseling	1920
2.	Follow-up Counseling	1440
3.	Prenatal Breastfeeding Discussion Group	1920
4.	Postpartum Problem Identification, Support and Referral (2 contacts for 500 women, and 1 contact for 500 women)	1500
5.	Breastfeeding Support Group	120
6.	Lactation Consultation	384

MODEL B: $50 Per Woman

I. **Budget**: $50,000 ($50 per person); Clinic Prenatal Caseload = 1,000

A. Personnel

1.	Coordinator/Lactation Consultant 1 FTE x $30,000	$30,000
2.	1 Peer Counselor 1 FTE x $12,500	$12,500

B. Operating Costs

1.	Travel	$3,000
2.	Supplies: education materials; incentive packages; space; etc.	$4,500

II. **Activities/People Served**

A. Weekly Activities and Staff Allocation

1. Coordinator (40 hours per week)

a.	Community activities: Health professional training; talk shows; clinic and community task forces; networking with school system and church groups; health fairs; meetings with hospital personnel, community physicians and public officials	18 hours
b.	Peer Counselor Supervision and Training	8 hours
c.	Lactation Consultation via Hospital, Home, and Clinic Contacts. (8 people at 1 hour each)	8 hours
d.	Administration (record keeping)	6 hours

2. Peer Counselor (40 hours per week)

a.	Initial Prenatal Assessment and Counseling (20 people at 15 minutes each)	5 hours
b.	Follow-up Counseling for All Women (20 people at 15 minutes each)	5 hours
c.	Prenatal Breastfeeding Discussion Group (10 per group; one group per week)	1.5 hours
d.	Prenatal Class: Initiation of Breastfeeding (10 per class; one class per week)	1.5 hours
e.	Postpartum problem identification, support and referral (hospital, home visit, clinic and phone contacts)	16 hours
f.	Postpartum Support Group (10 per group; one group per month)	3 hours
g.	Administration (appointment reminder calls/cards; and record keeping)	8 hours

B. Yearly Encounters (per 48 weeks)

1.	Initial Prenatal Assessment and Counseling	960
2.	Follow-up Counseling	960
3.	Prenatal Breastfeeding Discussion Group	480
4.	Prenatal Breastfeeding Initiation Group	480
5.	Postpartum Problem Identification, Support and Referral (3 contacts for 250 women and 2 contacts for 250 women)	1250
6.	Breastfeeding Support Group	120
7.	Lactation Consultation	384

Heppel

Breastfeeding

SPRANS Abstracts FY 1989

NCEMCH
National Center for Education in
Maternal and Child Health
38th and R Streets, N.W.
Washington, DC 20057
(202) 625-8400

Office of Maternal and Child Health
Bureau of Maternal and Child Health
and Resources Development
Health Resources and Services
Administration
Public Health Service
Department of Health and Human Services

Breastfeeding

TABLE OF CONTENTS

Demonstration Projects

Breastfeeding Promotion Project 7

Model Approach to Development of Breastfeeding as a Subspecialty Integrated with Private Sector Maternal Health Care 10

Promoting Breastfeeding at the Worksite and in the Neighborhood 13

Tennessee Breastfeeding Promotion Project 16

A Statewide Action Plan to Promote Breastfeeding 18

Breastfeeding Promotion in a Low-Income Urban Population 20

Indiana Breastfeeding Promotion Program 23

Alameda County Infant Feeding Project 25

Nutritional Status, Pregnancy, and Lactation 27

Research Projects

Determinants of Infant Feeding: Breast vs. Bottle 31

The Relationship Between Infant Feeding and Infections 33

Acculturation, Psychosocial Predictors, and Breastfeeding 34

Training Projects

Lactation Management 37

Infant Feeding and Growth--U.S.-Related Pacific Islands 37

Study Group on Human Lactation and Breastfeeding 38

Demonstration Projects

Breastfeeding Promotion Project
Washington State Department of Social
and Health Services
Bureau of Parent-Child Health Services
Mail Stop LC-16
Olympia, WA 98504
(206) 753-7353

MCJ-533754
10/01/85—09/30/88
Project Director:
Ilene F. Kasten, M.P.H., R. D.

PROBLEM: While breastfeeding is widely recognized as the preferred method of infant feeding because of its immunologic, nutritional, and emotional benefits, the incidence of breastfeeding among low-income and minority groups has remained low relative to the general population. Furthermore, data from the sites that were proposed for the project in Seattle-King County compared poorly with national breastfeeding rates among low-income women. Key factors related to low rates of breastfeeding are inadequate information and support.

GOALS AND OBJECTIVES: This project has three major goals:

1. To provide breastfeeding education to professionals across Washington State;
2. To develop educational materials about breastfeeding for use statewide; and
3. To evaluate a model of service delivery for effectiveness in increasing the incidence and duration of breastfeeding among low-income women. The service delivery model was implemented at two clinic sites in the Seattle-King County Department of Public Health.

Objectives for the project:

1. Provide training for key professionals working with low-income women and mothers of prematures through a two day training program given in Seattle and through training provided to staff at hospitals where project clients deliver;
2. Develop and evaluate culturally appropriate audiovisual aids and written materials. The focus of these materials is to increase motivation to breastfeed, improve breastfeeding success, support the breastfeeding of low birthweight infants, and assist in the training of professional staff;
3. Increase the number of women at each site each year who elect to breastfeed by 50 percent at Columbia Health Center and 20 percent at the North Health Office; and
4. Increase the number of women at each site breastfeeding three months after delivery so that 50 percent of the women who initiate breastfeeding are still breastfeeding at three months.

Site	Incidence Target Rate—Year 2	Duration (3 months) Target Rate—Year 2
Columbia Health Center	18%	09%
North Health Office	40%	20%

METHODOLOGY: To achieve the goals and objectives, the following activities were undertaken:

1. A two-day training session was conducted by Audrey Naylor, M.D., and Ruth Wester, R.N., P.N.P., of the San Diego Lactation Program. It was attended by 180 health professionals, half of whom were from hospitals where project clients deliver. Additionally, professional training sessions for hospital staff

took place at Virginia Mason, Swedish and University Hospitals, with pediatric grand rounds at Children's Hospital and Medical Center, which were attended by over 200 physicians.

2. A videotape for health professionals titled "Subtle Aspects of Breastfeeding" was produced and issued by project staff as part of professional training sessions. The main categories addressed in the videotape are issues related to prematures, newborns, and older infants. A second videotape, with personal accounts of breastfeeding experiences by project participants, is being produced. Plans are underway to reproduce the videotape for health professionals and to make it available at cost.
3. A triage tool for use by health professionals in providing consultation has been developed and piloted; the final revision is in process.
4. A series of 13 fact sheets will be translated into Southeast Asian languages.
5. A revision of the pamphlet for parents of premature infants was undertaken by project staff because they determined that the original pamphlet required an educational level exceeding that of clients served by the project. The revision has been completed and the pamphlet is being finalized with the graphic artist.
6. Presentations were made at six of the seven Seattle-King County Health Department sites. The presentations included an overview of the breastfeeding project, objectives, activities to date, delineation of staff roles, and future plans. The sites were offered services that included materials, consultation, and inservice on prematures, slow gaining infants, jaundice, how to get difficult babies on the breast, and use of lact-aid type devices. Staff from the community clinics attended the two-day professional training. Additionally, the two clinics that work with our project sites received on-site orientation to the project and basic inservice education. Other training activities were conducted at the project sites and for professional groups in the county.
7. Two inservices were held for interpreters working with the Southeast Asian population at Columbia Health Center. In addition to presenting basic information on breastfeeding, an extended discussion of cultural barriers to breastfeeding and ways to better promote breastfeeding took place.
8. For the most part, ongoing clinical activities have been conducted as planned. The project public health nurse makes individual contacts with all pregnant women in the maternity clinics. The WIC program schedules women for the breastfeeding class and identifies women appropriate for individual contact. The nurse enrolls clients into the project at the first contact. Each client is tracked and the project public health nurse tries to have phone contact in the last month to see whether the woman has any questions, and to ask her to call the project when she delivers. Through contacts with the hospital, patient contact with the project, the WIC program, and regular public health nursing referral, attempts are made to find out when the woman delivers so that immediate contact with her can be made, either at the hospital or at home. Since the first week is the time most women stop breastfeeding, repeated contacts are made by the project public health nurse during the first week postpartum. The project public health nurse also determines whether a home visit is necessary. Most home visits are conducted by the public health nurse from the client's district, with the project public health nurse providing consultation as needed. Ongoing monthly contact with the mother is made by the project public health nurse or nurse practitioner, with return appointments as necessary. One modification to the initial plan has been in the scheduling of postpartum visits with the project nurse practitioner. This is described in the "Experience to Date" section.

Classes are held regularly at both sites. At Columbia Health Center, the two proposed classes (a class on why breastfeeding is beneficial and a class on how to breastfeed) were condensed into one class, entitled "Infant Feeding," since too few women identified themselves as interested solely in a class on breastfeeding. At North District, the class is called "Breastfeeding" and is normally well attended. An after-hours call line is available, staffed by the clinic physician or nurse practitioner on call.

EVALUATION: To track project activities and measure achievement of project goals and objectives, an encounter form was devised for the project. The encounter forms are tabulated to provide a monthly report of visit type, unduplicated number of patients, and patient demographics. These are used to evaluate population differences and the effect of staffing levels and to determine when a change in the system may be necessary. The data gathered have been used to modify the clinical intervention as needed. For example, data indicated there was a disparity between the number of women seen in groups at Columbia and at North District. It appeared that women at North District were more willing to identify themselves as interested in breastfeeding.

Using this information, the project staff modified the content of the class at Columbia slightly and changed the title to "Infant Feeding" which resulted in increased client attendance.

EXPERIENCE TO DATE: The outcome objectives for incidence and duration of breastfeeding and the progress toward achievement of those objectives can be seen in the following chart:

	Incidence			Duration (3 months)		
Site	Baseline	Year 2 Target	Year 2 Actual	Baseline	Year 2 Target	Year 2 Actual
Columbia	8%	18%	27%	2%	9%	7.5%
North	28%	40%	52%	9%	20%	22.0%

The "actual rate" statistics are as of May 1987. The incidence rates for both sites have far exceeded our target rates. The three-month duration rate for North slightly exceeded the target, while the duration rate at Columbia was slightly less than the target. The three-month duration rate for Columbia still shows great improvement over the duration rate at the start of the project, which was two percent.

The basic activities described in the methodology section have been conducted as planned, with the following modifications. It was found that the project nurse practitioner's time was not being used as effectively as we had planned with a combined postpartum/newborn visit. The reason for this is that the providers of antepartal care wanted to see the mother at her postpartum visits. To accommodate this, the project nurse practitioner is working with the staff providers as they see their own postpartum clients, and is seeing all clients with breastfeeding problems that the staff providers cannot resolve. Within the system that has evolved, the mothers receive consistent and accurate breastfeeding information and training is taking place.

The after-hours call system is available. All people in the department who take after-hours calls have received some breastfeeding training. We have not promoted its use, however, because the providers on-call feel they already have too many calls. Feedback from clients has not indicated that they need the service since staff routinely followup with clients and are available during the day.

There has been more resistance on the part of professionals to their clients' breastfeeding than anticipated. We have found this particularly at one of the project sites and one hospital. Our approaches to overcome this have included the second professional training, which was well attended by both groups, and direct contact by the trainers at both locations. At the hospital, the effort is to strengthen contacts in the promotion of breastfeeding, because the expectation of the staff is that low-income women won't breastfeed. At one of the project sites, the clinic staff did not see a need for their own education because the project team was seeing all the breastfeeding women. Also, since the duration of breastfeeding at the site is not that long, most mothers had stopped breastfeeding by the time they saw their regular provider. The approach to this problem has been to have the project nurse practitioner work less in clinical activities and more with the providers so they will be reinforced.

Overall, we have exceeded our goals and have been very successful at increasing the incidence of breastfeeding with significant improvement in duration as well. The factor analysis to be conducted at the end of the third year of the project will help elucidate which components of the project contributed to this success. Our efforts to explore both patient and professional education through the use of videotapes has also been successful. We find the visual aids extremely useful where verbal discussion does not convey the more subtle aspects of breastfeeding.

Model Approach to Development of Breastfeeding as a Subspecialty Integrated with Private Sector Maternal Health Care

Renewable Technologies, Inc. (RTI)
Community Nutrition Division
630 Utah, P.O. Box 4113
Butte, MT 59702
(406) 782-2386

MCJ-303660
10/01/85—12/31/88
Project Director:
Rita J. Bradley, R.D.

PROBLEM: The problem addressed by this project is the need to increase the incidence and duration of breastfeeding in order to meet the Surgeon General's 1990 goals. Increases in breastfeeding were targeted because the potential for health improvement is significant. As addressed in the Effective Pregnancy Infant Care (EPIC) initiative, disincentives to breastfeeding remain in the health care delivery system. Because breastfeeding disincentives exist in all areas of maternal and infant health care, integration of breastfeeding services into the private sector health care system can have a major impact on increasing breastfeeding initiation and duration.

GOALS AND OBJECTIVES: The overall goal is to establish a model program of breastfeeding services which provides a permanent, self-supporting means of increasing breastfeeding occurrence and duration. This is being accomplished by integrating services by health care professionals with human lactation/breastfeeding subspecialization into the private sector maternal and pediatric health care system, and by pursuing options for receiving payment for these services.

METHODOLOGY: The implementation plan consists of project administration and the following principal activities: establishing breastfeeding services as an integral part of prenatal, inhospital, and postpartum ambulatory care; conducting a comparative study/infant feeding survey; improving the local climate of support for breastfeeding; participating in breastfeeding promotion efforts with the State Maternal and Child Health (MCH) Bureau; obtaining financing for these services by breastfeeding subspecialists so that they become a self-supporting part of maternal and infant health care; and supporting project replication through information dissemination in State, regional, and Federal MCH networks.

EVALUATION: A comparative study and infant feeding survey is used to monitor changes and improvements in the status of the health problem. It is divided into two phases—initial interviews prior to hospital discharge and monthly followup surveys on infant feeding and health until one year of age. The amended objective is being met: 83 percent of the women are being interviewed in the hospital.

A tracking system of all deliveries is kept and this information is used to manage inhospital project staff time and to plan for postdelivery followup. It is also a second source of data on infant feeding methods at hospital discharge in addition to our surveys. A spreadsheet of all patient interventions is kept for assessment of time per patient. This information has and will continue to be used for direct care service analysis—important in determining a reasonable cost for services. Objective-related activities scheduling is used for program timeline planning and priority setting to assure that program milestones are reached; project staff meet regularly to review progress. A computerized personnel cost accounting system tracks project activities, staff time and costs. Our direct care services are shown to be very effective both by physicians' responses and by reviewing the data. Of a random sampling of 166 women in the treated group who have delivered, 86 percent were breastfeeding at hospital discharge. In contrast, only 62 percent (182 women) in the control group initiated breastfeeding. In analyzing duration data from a small number of files randomly entered, out of 30 women in the treated group who initiated breastfeeding, 63 percent were still breastfeeding at six months. Since the beginning of program year two, we served about 33 percent of the target population.

EXPERIENCE TO DATE: Direct patient care includes ongoing breastfeeding promotion, management and care, followup, and support services to patients prenatally, in the hospital and in the postpartum care periods. A hotline is operational. In addition to patient care through key medical practices serving the maternal and pediatric populations, our program has expanded to routinely include patients of other private sector practitioners. They felt our program was particularly valuable since we provide other care components as well—prenatal nutrition counseling and assessments and evaluations (weight gain management, etc.), and infant feeding information. We are receiving patient referrals for our care from additional providers as well. An advisory board of medical practitioners and inhospital representatives serving the target population has been established.

Providing information to community organizations and health care providers has gone extremely well. We maintain a library on lactation and breastfeeding which is available to medical personnel serving MCH needs. Project information is being disseminated: All providers of obstetric and pediatric care at the project site, except one general practitioner, use our materials; the hospital Obstetrics Department uses our materials for staff self-training. The local health department director has requested that we participate in patient outreach activities.

Coordination with the State MCH Bureau is crucial to ensuring project replication and has helped us secure a broad base of support for and involvement with our project among key health care programs, individuals and groups. We worked with the Montana WIC program personnel to adapt and integrate our program into WIC programs statewide in order to help meet their nutrition objective to increase breastfeeding initiation and duration. We modified our counseling and patient materials for use in the program and had them professionally printed in quantity for dissemination by the State WIC office. The materials have been well accepted. A WIC survey identified that prior to our brochures the major source of breastfeeding information in Montana WIC came from formula manufacturers; other sources of information on breastfeeding are vital. From our surveys, out of the 147 women who chose to breastfeed because of health benefits, 65 percent identified the source of their information as reading materials.

To assure that statewide staff received adequate information to incorporate our program, the Montana Family/MCH Bureau requested that we provide educational updates via presentations at annual health meetings. A presentation on breastfeeding promotion and professional services was made to the Montana Dietetic Association. Presentations were made at the annual State WIC meeting and the Montana/Idaho Health Conference. As followup to the health conference, supplemental information on breastfeeding promotion in Montana WIC clinics was sent out through the State office with other guidance materials from RTI and the State WIC staff. By invitation from the acting director of the regional MCH bureau, the project director presented information on project progress at the annual MCH Interagency Collaboration and Coordination Meeting for Region VIII Regional Institute.

Both the Montana Perinatal Association and the Healthy Mothers, Healthy Babies (HMHB) Montana Coalition adopted the joint RTI project/Montana MCH and WIC breastfeeding goals and objectives into their nutrition section goals and objectives. The steering committee of HMHB has also agreed to serve in an advisory capacity and help with specific program activities to help ensure that we meet our goals and objectives.

We have initiated efforts to make the transition to nongrant financing. Requests for us to incorporate our breastfeeding services into private medical practices indicates that our program has proven effective on its own merits. Physician endorsement, involvement, and referral is crucial to longevity, program replication, and receipt of payment for services.

We have made significant progress in efforts to establish payment for breastfeeding services. Third-party payers have shown an interest in evaluating our specific program of care and its effectiveness, the cost of services, and consumer wants. We believe our program is very effective; from the data, the number of women choosing and continuing to breastfeed is dramatic. In addition, to address this issue, we defined essential areas that must be pursued. We gathered background information and met with a selected third-party payer in program year one. We made this contact prior to building a broad base of support for these services because of a funding condition; however, obtaining support is a crucial step. Therefore, our emphasis in year two was placed on building support for our program not only from patients and key health care professionals and organizations but also from politically and business oriented groups. The next step is development of a reimbursement proposal. We have submitted an information package and updates to selected third-party payers that include many points that are covered in a formal proposal. Joint presentations and backing by a strong support network will add weight to our proposal and will help in followup activities once the proposal is submitted. We also have maintained contact with the insurance company whose officials met with us. In our investigation of other health care reimbursement efforts, we found that an approach similar to RTI's was successful in obtaining third-party reimbursement for diabetic outpatient education.

The Montana MCH director is participating in plans for information exchange and meetings with third-party payers regarding the information submitted to them by us. The Montana HMHB coalition board agreed to work with us through their third-party payer subcommittee to pursue payment for breastfeeding services. Various hospitals in Montana are interested in utilizing our materials; this follows a trend established by other hospitals nationwide. Their interest will be important in promoting support for our services.

The governor has been contacted regarding our interest in Montana's health care cost containment council. Many of the members from business and industry have been identified as important sources of support when approaching third-party payers.

A dietitian in a private practice in a Montana medical clinic who is providing breastfeeding services has actively pursued third-party payment. Her work and plans in the area of payment for breastfeeding services are being evaluated with our efforts and progress in this area.

Establishing these relationships and working with other health care programs and organizations took considerable time. However, the broad base of support established and the joint efforts will be important to our continued efforts to receive payment for breastfeeding services.

These activities and the research results show that the potential for reimbursement of these services by qualified providers is feasible. With continued research and emphasis on pursuit of this during the remainder of the project, we believe we will meet our objectives of receiving payment for our services.

Project replication through information dissemination was carried out by annual meetings with and reports to Federal and regional personnel and ongoing activities through the State office. We also have begun development of a manual on direct care services.

The project made contributions to improve the health status of mothers and children in States other than Montana. We provided a sample packet of our materials at the national WIC directors meeting and have received requests for our materials from other States and requests to provide technical assistance and information on breastfeeding promotion and care services and their financing. We were nominated as a model breastfeeding project by the Montana WIC program to the company funded by the USDA to determine successful breastfeeding programs for use by WIC nationwide. In addition, in pursuing payment for these or other MCH services, other States could utilize our information on financing and the supporting data from our surveys.

Promoting Breastfeeding at the Worksite and in the Neighborhood
National Child Nutrition Project
1501 Cherry Street
Philadelphia, PA 19102
(215) 496-9003

MCJ-423687
08/01/85—07/31/88
Project Director:
Sandra B. Sherman

PROBLEM: Although overall breastfeeding rates have increased since 1970, some groups of women are still unlikely to breastfeed their babies, or to continue to breastfeed them for a long period. Low-income and minority women do not initiate breastfeeding as often as white, higher-income women. Working women also tend to discontinue breastfeeding earlier than nonworking women. The effect of employment on breastfeeding is increasingly important because so many women are now returning to work soon after their infants are born. According to a recent Department of Labor report, nearly half of all mothers with children under one year are currently in the labor force. This same report suggests that many of the mothers who return to work are not well-paid, and many are minority women.

GOALS AND OBJECTIVES: This project proposes to increase the incidence and duration of breastfeeding among low-income women who will be returning to work or school. The major objectives of the project are that: a) mothers have sufficient information and support to breastfeed, b) health professionals have sufficient information and a positive attitude toward breastfeeding and working, and c) the work environment and child care setting provide a supportive atmosphere to breastfeeding mothers.

METHODOLOGY: To achieve these objectives, this project is employing a three part strategy. First, a maternal breastfeeding education program is being designed, along with a peer counseling network. The focus of the education program will be to inform mothers about the benefits of breastfeeding, and the alternatives that are possible in continuing to breastfeed after returning to work or school. The peer counseling network will revolve around a group of volunteer women from the community trained to be breastfeeding counselors and knowledgeable about working and breastfeeding.

Second, an educational program for health professionals is being designed that will include information on how to help their patients continue to breastfeed when they return to work or school.

The third part of the strategy is to facilitate changes in the child care and employment settings to accommodate breastfeeding women who return to work. These strategies were chosen because of their proven success in increasing the number of women who breastfeed and the duration for which they continue. The project is being carried out in three sites, one each in Pennsylvania, Delaware, and Maryland. In considering the type of site in which our program would best reach women who are both low-income and likely to return to work soon after their children are born, we decided against limiting our sites to prenatal clinics serving only low-income women. Our inquiries at these clinics suggested that many of these mothers are not working and are not likely to find employment while their infants are still very young. Because of this, geographical areas, or neighborhoods, have been chosen as project sites.

The project sites for this project are:

1. Delaware: The City of Wilmington,
2. Maryland: Edmonson Village and Rosemont in West Baltimore, and
3. Pennsylvania: West Philadelphia.

Criteria for choosing these neighborhoods included a relatively low annual median family income, at least 1000 births per year, a high rate of labor participation among women with young children, a central hospital where women deliver their infants, and availability of child care.

These sites were chosen with the assistance of a State Level Advisory Committee. This ten person committee has representatives from three States, including representatives from maternal and child health, nutrition, WIC, public health nursing, labor, and child care.

In addition to assisting in site selection, this committee meets three times a year to review materials and data, and to discuss other project issues.

Choosing neighborhoods as project sites means that the resources of this project will be made available to a number of organizations in the community where low-income working women might be reached. Educational materials and training sessions will be available not only to health centers, but also to private practitioners who provide prenatal, postpartum, and well-child care. The breastfeeding support counselors will be available to attend educational sessions, and to talk with pregnant and breastfeeding women at health sites. In addition, referral systems are being developed at each health site so that counselors can be reached for telephone counseling.

In order to increase the likelihood that we will reach working women with this information and support, we will also be providing breastfeeding resources at parent meetings at child care centers, job training programs for women, neighborhood libraries, churches, and worksites. The materials developed for child care providers will be distributed to child care centers and to programs that train family day care providers. The information prepared for employers will be presented to unions and large employers of women from these neighborhoods in meetings with their members, employees, and community groups.

In addition to the local implementation of this project, local-level advisory committees are being formed in each project site. These committees are comprised of representatives from health sites, child care facilities, business, and labor. These committees will help coordinate the educational program and the referrals, to support groups at the individual sites in the communities.

EVALUATION: Breastfeeding rates of working women in the project areas are being monitored by collecting data at the hospitals in the selected project areas. Project activities are being monitored with a set of monthly checklists.

The evaluation component of this project consists of interviewing breastfeeding women, and having women and health professionals complete questionnaires about their knowledge and attitudes on breastfeeding and working. Women from the project area who are breastfeeding and plan to return to work within six months after the birth of their baby will be identified in the hospital after delivery. They will be asked to participate in three postpartum telephone interviews. Both women and health staff at participating health sites will be asked to complete self-administered questionnaires before and after education sessions. In addition, child care providers and employees of targeted worksites will be surveyed in order to determine their knowledge and attitudes toward breastfeeding and working, and to monitor the changes occurring as a result of the project intervention.

EXPERIENCE TO DATE: Educational materials for women, health professionals, child care providers, and employers have been developed using information obtained from the literature review as well as from numerous meetings and presentations at health sites and community organizations that work with women of childbearing age. The maternal materials consist of 10 short booklets that focus on different aspects of breastfeeding and working. The education program for health care providers consists of seminars and teaching plans that parallel the materials for mothers.

An eight week training course for volunteer breastfeeding support counselors has been developed, and includes a teaching plan and training manual. This training course has been run in Philadelphia, and is planned for Baltimore and Wilmington in the early summer. Experienced breastfeeding counselors were identified to be trainers for these courses. In Philadelphia, the trainers were from the Childbirth Education Association (CEA); trainers in the other sites are affiliated with nursing mothers' groups from nearby areas. A flyer and brochure were developed and used by staff at local health clinics, WIC clinics, and child care facilities to recruit potential counselors. The difficult part of setting up the support group has been recruiting counselors. It is somewhat difficult to find women who have had successful breastfeeding experiences in low-income neighborhoods who are able to take on volunteer activities that may incur a cost to them in terms of transportation and child care. In Philadelphia, we were able to increase interest by providing child care at the training sessions, and reimbursing for transportation costs.

A strategy for worksite change has been developed which involves the development of Working Parent Advocacy Committees, through unions and community groups. Project staff will be working with these groups to assess their interest in breastfeeding and other working parent issues, and assisting them in arranging educational seminars. Plans for change will then be developed and implemented by the parent advocacy groups, aided in working with us on these issues in their work places.

Questionnaires to be used in the baseline assessment of knowledge and attitudes of postpartum women have been developed and pretested. Data are being collected with these questionnaires in three project sites. Information on breastfeeding rates and numbers of women returning to work has been collected, and some preliminary data on knowledge and attitudes of working breastfeeding mothers have been analyzed.

The major obstacle in this project is finding places to reach low-income women who intend to return to work when their infants are still very young. Traditionally, prenatal education programs for low-income women are carried out in prenatal clinics, but many of the working poor have some type of health benefit that enables them to use private medical care. While many child care centers do invite speakers to parent meetings, most infants are not cared for in centers, but in family day care homes. Licensed family day care providers can be reached through the agencies that license them, but the vast majority of family day care providers are not licensed. Most employers do not have large enough numbers of female employees to have a significant number of babies born in any given year. Our local level advisory committees have been helpful in suggesting community resources that may turn out to be places where low-income working women can be reached.

Tennessee Breastfeeding Promotion Project
Tennessee Department of Health and
Environment
100 Ninth Avenue North
Nashville, TN 37219-5405
(615) 741-0265

MCJ-473813
10/01/86—09/30/89
Project Director:
Minda Lazarov, M.S., R.D.

PROBLEM: The U.S. Department of Health and Human Services has identified breastfeeding promotion as a high priority national objective, with a 1990 goal of increasing the proportion of women who breastfeed their babies to 75 percent at hospital discharge and 35 percent at six months of age. Current breastfeeding promotion efforts within the Tennessee Department of Health and Environment (TDHE), focusing primarily on pregnant women participating in the Tennessee WIC program, have resulted in minimal success. Rates of breastfeeding among WIC women at six weeks postpartum have remained stable at 9-10 percent since 1983. This rate is substantially lower for the black population, with only 3.6 percent of black participants breastfeeding at six weeks postpartum during 1985. A variety of factors contribute to these extremely low rates of breastfeeding among low-income women. These include race, level of education, misconceptions about breastfeeding, degree of support from family, friends and employers, and lack of available, knowledgeable, and supportive health care providers.

To address these concerns, TDHE initiated a statewide multidisciplinary Breastfeeding Promotion Task Force in October 1984. In keeping with the national objective, the goals of the task force include determining effective strategies to increase the incidence of breastfeeding and the duration of the breastfeeding period. One of the primary activities of the task force was the preparation of the manual *Breastfeeding Promotion: A Handbook for Public Health Professionals*, which is designed to provide a concise, comprehensive, step-by-step guide to developing and implementing effective new strategies for breastfeeding promotion among low-income women. The manual is a unique attempt to consolidate a variety of promotion activities suitable for an agency serving low income women. However, because of the lack of time among personnel in local clinics, there has been little formal, systematic use of the manual to test its effectiveness in increasing the frequency of breastfeeding among low-income women in Tennessee.

GOALS AND OBJECTIVES: TDHE has planned a comprehensive breastfeeding promotion program involving both the public and private sectors of the medical community. The plans of action, activities, and materials provided in the TDHE manual, *Breastfeeding Promotion: A Handbook for Public Health Professionals*, are being used to increase the rate and duration of breastfeeding among low-income women in three rural counties and one urban county with large black populations.

METHODOLOGY: The project is to be administered through a joint effort of the TDHE Maternal and Child Health Section, the Division of Nutrition and Supplemental Food Program, and the TDHE Southwest Regional Health Department staff. The test group is low-income pregnant women who enter the Maternal and Child Health (MCH) prenatal projects and/or the WIC Program during pregnancy. In the MCH prenatal program, low income is defined by the Federal poverty guidelines. A simple comparative trial between the three study clinics and four control clinics is being used. We will test the null hypothesis that the incidence of breastfeeding at hospital discharge, six weeks, three months and six months postpartum will not differ between control and experimental clinics initially similar in six weeks postpartum breastfeeding rates and other demographic variables related to breastfeeding (i.e., race and maternal age).

In order to increase the incidence of breastfeeding, all clients entering the prenatal program in the study clinics participate in a series of educational contacts delivered by health department prenatal and project staff. In these individual and group counseling sessions, the knowledge and attitudes of each expectant woman are assessed and discussed. The "contract" incentive program "Help Your Baby to A Healthy Start" is instituted at the initial visit to help assure maximum attendance at all project activities during the prenatal period. Because of the problems encountered in the past with lack of participation, particularly among other family members, this portion of the program is critical to recruiting the support of the primary family members. Upon completing participation in all educational activities outlined in the contract, the family receives two weeks' worth of disposable or cloth diapers.

A network has been established with the private health care sector to enhance the TDHE clinic efforts. To increase the duration of the breastfeeding period, a peer counselor support system has been implemented. The paid, trained lay counselors will deliver the majority of these postpartum contacts. A volunteer peer support system will be implemented during the third project year, as the pool of mothers who have successfully breastfed increases. A breast pump loan program also will be available for those mothers working outside the home and others wishing to express their milk.

A social marketing project for the promotion of breastfeeding is being conducted in conjunction with the Lexington, Kentucky-Fayette County Health Department and Manoff Associates of Washington, D.C. We are currently holding focus groups to assist in the development of educational materials, patient education strategies, and community awareness activities.

EVALUATION: Rates for duration of breastfeeding at hospital discharge, two weeks, six weeks, three months, and six months postpartum, in test and control groups will be compared with baseline data gathered prior to the project's start. Pre-test and post-test scores of the infant feeding survey used to assess knowledge and attitudes regarding breastfeeding will be examined. In addition to the incidence and duration of breastfeeding, a second major outcome measure has been developed to monitor the total monthly amount of formula issued per infant served through the WIC Program in both the test and control sites. From this procedure, we hope to determine if the WIC Program has realized any food cost savings from decreased formula expenditures.

We will use project evaluations to revise the breastfeeding promotion manual, particularly for use with black and working women. We anticipate that project results will serve as a model for replication in a variety of settings serving low-income women.

EXPERIENCE TO DATE: The project has been implemented in the three rural sites. The urban site and the most recently initiated rural project have been redesigned to provide a more integrated, cost-effective model for promoting breastfeeding, based on an evaluation of the first project year activities. These two scaled-down models include mother-to-mother volunteer support groups and more participation from the WIC and MCH staff.

A Statewide Action Plan to Promote Breastfeeding

South Carolina Department of Health and
Environmental Control
Division of Children's Health
2600 Bull Street
Columbia, SC 29201
(803) 734-4620

MCJ-453844
10/01/86—09/30/89
Project Director:
Robert H. Buchanan, Jr., M. Ed.

PROBLEM: In February 1986, among postpartum women in South Carolina served by the WIC program, only 646 women (10 percent) of 6513 served during that month reported that they were breastfeeding. This number had changed little over the past four years.

Among WIC clients in South Carolina, breastfeeding is both age and race dependent. At the time of the last assessment in April 1986, among white WIC participants 6.7 percent of those 10-14 years of age, 6.3 percent of those aged 15-19, and 21.5 percent of those 20 and older, breastfed. Among blacks the corresponding figures were 0.0 percent, 2.3 percent, and 7.0 percent, respectively.

GOALS AND OBJECTIVES: The goal of the project is to increase the number of low-income and black mothers who breastfeed.

The objectives are as follows:

1. The percentage of South Carolina WIC mothers breastfeeding at discharge from the hospital will increase from the present rate of 20.9 percent to 27.8 percent by September 1989, a cumulative increase of 33 percent.
2. The number of postpartum breastfeeding women served by the South Carolina WIC program will increase from 690 (monthly average for 1982-1985) to 918 by September 1989, a cumulative increase of 33 percent.
3. The number of black postpartum breastfeeding women served by the South Carolina WIC program will increase from 396 in April 1986, to 517 by September 1989, a cumulative increase of 33 percent.

METHODOLOGY: Staff of the project include the director, a full-time project coordinator to coordinate the project, part-time nutritionist, nurse, or health educator (20 percent) in 5 of the 15 State health districts each year, and a secretary (50 percent).

1. A statewide advisory council to be convened twice the first year and annually thereafter will be composed of physicians, nurses, nutritionists and persons representing relevant organizations, such as the hospital association, extension service, university, LaLeche League, Healthy Mothers/Healthy Babies Coalition, resource mothers group, and other lactation support groups.
2. Based on information provided by focus groups to identify messages, promotional materials will be developed which appeal to the emotions and dispel mistaken beliefs. For example, a slide/tape presentation will be developed to illustrate the cost savings of breastfeeding and to show that the breast does not have to be exposed to breastfeed.
3. Physicians delivering prenatal care in each of the target districts will receive personal letters from colleagues at the beginning and midpoint of the project year soliciting their active support of breastfeeding in their practice. This is coordinated with visits by the breastfeeding promoter to physicians' offices to talk with office staff.

4. Practices that influence breastfeeding will be evaluated in the 63 hospitals with obstetric services, and inservice training will be offered to head nurses.
5. Support groups, composed primarily of WIC clients, will be developed in each county and supported by project staff and a small budget from the grant to pay for teaching materials or travel to conferences.

EVALUATION:. Trends in breastfeeding rates will be assessed using the WIC data system and a voluntary hospital reporting system. The WIC data system, which includes information on all participants statewide, will provide the number of women each month who are newly enrolled in the breastfeeding category, by county and race. Each hospital will be requested to provide a monthly report of the number of infants born and the number breastfeeding in hospitals.

EXPERIENCE TO DATE:

1. The project's statewide advisory council has met two times and has been helpful in improving the evaluation plan, offering advice on the conduct of the project, and in generating enthusiasm at the local level for local advisory councils and coalitions to promote breastfeeding.
2. Development of promotional materials is in the production phase. Focus groups have been surveyed to assess attitudes of WIC clients toward breastfeeding. Results of these focus groups indicate the primary reasons for not breastfeeding are feelings of embarrassment, fear of pain, and opinions that breastfeeding is less convenient than bottle-feeding. Interestingly, knowledge about the advantages of breastfeeding was high among the women interviewed.
3. Project activities to encourage physician involvement have been revised from personal telephone calls to a system that will keep breastfeeding issues before physicians on a more frequent basis and that will involve physician office staff more directly in the process.
4. Assessment of 12 hospitals in the four new districts of activity this year indicates the following problems:
   a. Sedation: In 9 of 12 hospitals maternal analgesia from demerol or vistaril is still commonly used which may lead to sedation of the infant.

   b. Separation: All of the hospitals have rooming-in upon the mother's request, however, in six hospitals the infants are returned to the nursery at night.

   c. Scheduling: In four hospitals, breastfed infants are brought to the mother only on schedule. In the remaining eight, the breastfed infants are fed on demand or at least every three hours.

   d. Supplementation: All hospitals give supplements of glucose or sterile water to breastfed infants.

   e. Support: Eleven hospitals claim to support breastfeeding. Only one hospital has an individual identified as responsible for lactation support. This individual is a full-time lactation consultant.

   f. Sabotage: In 3 of the 12 hospitals, breastfeeding is routinely discontinued if the infant has jaundice.

   The survey indicates that six hospitals are taking a very active and progressive role in the support of the mother and the promotion of breastfeeding. However, some continue the practices that interfere with breastfeeding and make little effort to actively support breastfeeding.
5. We have established support groups in 12 counties which meet regularly; attendance is sparse despite efforts to enhance participation.
6. Evaluation of data obtained during the first three months of the second year of project activity indicates an increase from three percent to four percent in breastfeeding rates in target women. Voluntary hospital reporting of breastfeeding at discharge was initiated in March 1987. Since that time, 42.4 percent of all infants at discharge in the intervention districts were breastfeeding.

Breastfeeding Promotion in a Low-Income Urban Population

MCJ-393724
10/01/85—09/30/89

The Ohio State University
456 West 10th Avenue 2100-UHC
Columbus, OH 43210
(614) 293-8034

Project Director:
Lindsey K. Grossman, M.D.

PROBLEM: Breastfeeding is widely recognized as the best form of nutrition for all normal newborns, and, in recent years, the prevalence of breastfeeding in the middle and upper income groups in this country has risen impressively. Unfortunately, very few low-income women, whose infants would most benefit from the advantages of breastfeeding, have elected to breastfeed. Little is known about how low-income women make infant feeding decisions or about how this decision might be influenced in favor of nursing.

GOALS AND OBJECTIVES: This breastfeeding promotion project was proposed with two goals in mind: a) to increase the proportion of low-income women who decide to breastfeed, and b) to assist those who choose to nurse to do so successfully and for a prolonged period.

The specific objectives of this project are to:

1. Evaluate existing retrospective data from the High-Risk Perinatal Project during the period 1975-1985, to better identify demographic or other factors which are associated with the decision to breastfeed by low-income women;
2. Develop and test interventions which will increase the proportion of low-income, minority and/or high-risk women who deliver at the Ohio State University Hospital and who choose to breastfeed and to assist them in successful long term lactation; and
3. Design a "package" of educational interventions to increase the proportion of low-income women who breastfeed which could be used in similar settings and populations in Central Ohio and elsewhere.

METHODOLOGY, EVALUATION, EXPERIENCE (presented by individual components):

Component 1.0: Retrospective Analysis of Previous and Current Local Breastfeeding Promotion Efforts. Analysis of this data set of 2476 women from 10 years' experience in the OSU High-Risk Perinatal Project (State of Ohio and Title V funded program to improve perinatal outcomes at Ohio State) identified certain characteristics associated with low-income women who choose to breastfeed. Although 70 percent of women reporting a prenatal intention to breastfeed and 96 percent of those prenatally planning to bottlefeed confirmed their early plans postnatally, two-thirds of those prenatally undecided chose formula postpartum, indicating that perhaps the most efficient use of breastfeeding promotion efforts might be directed primarily toward those who are undecided in the antepartum period.

Component 2.1: Postpartum Support for Nursing Mothers. Low-income women who stated an intention to breastfeed at delivery were randomized after informed consent into two groups. Demographic and other background information was collected on both intervention and control groups. Women in the intervention group only received one-on-one bedside teaching about breastfeeding and a series of telephone calls to their homes at specific intervals following discharge to assist them with any problems. Additionally, breastfeeding counseling was available by phone to this group through the 24-hour "Breastfeeding Helpline." Both groups were contacted again at six weeks postdischarge and monthly thereafter to determine the duration of breastfeeding in both groups. No significant difference was found in the number of women still nursing at 6 weeks and 3, 4 and 6 months postpartum although both groups differed significantly from the High-Risk Program women in the number nursing at 6 weeks (78 percent in our project compared with 54 percent previously; $p < 0.05$). We feel, therefore, that our project did indeed have an effect, probably by stimulating the postpartum floor nurses to spend more time in breastfeeding promotion.

Component 2.2: **Breastfeeding Promotion Education Program.**

Component 2.21: **Modified Prenatal Educational Program Using Professional Staff.** Low-income women who were receiving prenatal care at the OSU Prenatal Clinic were randomized into intervention and control groups with background and demographic information collected on each subject following informed consent. The control group was exposed only to the usual teaching available in the clinic while the intervention women received a carefully prepared curriculum involving both small group and individual brief sessions with project nurses to discuss the advantages of breastfeeding as well as nutritional concerns, and to help with difficulties. The curriculum includes a series of three take-home pamphlets, authored by project staff and written at a sixth to ninth grade reading level.

Of 200 enrolled women delivered, 40 percent of intervention women versus 19 percent of control women have chosen to breastfeed, a difference of 100 percent ($p < 0.003$). Preliminary data evaluation suggests that intervention women may also have been more interested in breastfeeding prior to contact with our staff. All women will be followed until weaning to determine any effect our educational intervention may have had on the duration of breastfeeding.

Pre- and postpartum tests were painstakingly developed, tested for reliability, and administered at enrollment and delivery to both groups to determine how much each woman actually learned in our sessions. Evaluation of this data demonstrated that intervention women appeared to learn more than the control women about breastfeeding during their pregnancies.

Component 2.22: Modified Education Program Using Professional Staff and Successful Peer as a Mentor. Women enrolled in this component received the same educational program that Intervention women in 2.21 received, but, additionally, they were introduced to women from similar ethnic, racial, and socioeconomic groups ("peer counselors") who have been successful breastfeeding mothers. At delivery, 69 percent of women in the peer counselor group have chosen breastfeeding. This represents a significant increase at the $p< 0.0001$ level, over the 2.21 Intervention group's 40 percent rate. Further analysis of data from this component is pending.

Component 2.23: Identification and Education of the Mother's Key Support Person(s). In this component, we attempted to educate those individuals to whom the prenatal mothers most often turn for support and guidance concerning breastfeeding. It was hoped that these individuals would assist us in encouraging the mothers to nurse successfully. Our efforts to reach these individuals have, however, often been unsuccessful and so far we have only been able to contact support persons for 29 of our 100 enrolled women.

Component 2.24: Postpartum support from professional staff and peer mentor. Encouraged by the success of the addition of the peer counselors to the prenatal interventions, we decided to add them to our postpartum program as well. In this component we used a similar design to Component 2.1 except that we added at least one postpartum telephone call and often an inhospital visit from a peer counselor. We recently completed the enrollment phase of this component but insufficient time has elapsed to determine its effect on the duration of breasfeeding in these women.

Component 3.0: Expansion of Interventions to Other Similar Clinical Settings. After it became apparent that our prenatal interventions did indeed assist in convincing more low-income women to breastfeed, we wished to test the generalizability of such a program elsewhere when administered by individuals not involved in our project. A two-day inservice program on our interventions and curriculum for prenatal women was presented to the staff of two city community prenatal clinics in Columbus. Staff from these clinics then enrolled women served by the clinics into Component 3.0, identical to Component 2.21 except that OSU staff was not involved. Preliminary analysis demonstrated that an increase in incidence of breastfeeding in women from both clinics from 20 percent before the start of our interventions to 45 percent in those women enrolled in our project ($p < 0.01$).

Other activities and accomplishments have been a part of this project. A library of educational resource materials has been compiled for assistance in the teaching of both patients and professionals. Our project staff has been active in teaching the practical aspects of breastfeeding promotion to medical, nursing, and nutrition students, resident physicians in pediatrics and family practice, and State health department MCH and WIC staff.

Invaluable advice and support has come from our advisory board, a group of highly experienced professionals from pediatrics, obstetrics, maternal and child nursing, nutrition, statistics, and education, from both the University and the public health community. The board meets as a group twice yearly with project staff to receive updates and lend assistance. Individual members have been called upon frequently for specific guidance on a problem.

Indiana Breastfeeding Promotion Program
Indiana State Board of Health
1330 West Michigan Street
P.O. Box 1964
Indianapolis, IN 46206-1964
(317) 633-8518

MCJ-183822
10/01/86—09/30/89
Project Director:
Chery Smith, M.P.H., R.D.

PROBLEM: While the health and psychological benefits of breastfeeding for both mother and infant have been widely recognized by health professionals and are often cited in scientific literature, many women do not practice this method of infant feeding. Since reaching its lowest level of 25 percent in 1971, the national incidence of breastfeeding at discharge from the hospital at delivery has shown an increase to 59.4 percent in 1984. In the State of Indiana in July 1987, 60.3 percent of infants were breastfed in the hospital and 20.3 percent were breastfed at six months of age. The level of breastfeeding has been determined to be a result of a lack of knowledge and acceptability of the practice of breastfeeding on the part of health care providers, health care systems, women and their support systems, industries, and schools. In order to accomplish the Surgeon General's goals for breastfeeding and to realize the health and psychological benefits to mother and infant, promotion of breastfeeding must be a priority.

GOALS AND OBJECTIVES: The overall goal of the Indiana Breastfeeding Promotion Program is to improve the health of infants in the State. The outcome objective states that by completion of the project, 75 percent of infants born to women who reside in Indiana will be breastfed at hospital discharge, and 35 percent of infants will be breastfed at six months of age.

METHODOLOGY: A Breastfeeding Advisory Council, representing the entire State and various professional backgrounds, meets quarterly to guide the project. Three working subcommittees (Health Care Systems, Media/Consumers, and Day Care and Industry) are responsible for implementing the activities of the project. A "Breastfeeding Philosophy Statement" serves as a guiding document for the promotion.

The Health Care Systems Subcommittee focuses on activities to help develop institutional and professional policies that are in concert with the breastfeeding philosophy. Surveys of physicians and hospitals have indicated a need for professional education which is currently underway and uses paid training consultants. A reference manual, *Breastfeeding: A Problem-Solving Manual*, is being distributed.

A major media campaign that promotes breastfeeding is targeting all consumers in the State. This includes educational videos, television public service announcements, posters, brochures, bus signs, and billboards. An innovative campaign kickoff was held to highlight various activities throughout the State. A toll-free helpline was installed and is being advertised.

The Day Care and Industry Subcommittee is developing strategies to support working, breastfeeding women. Industries were surveyed on policies and practices at the worksite as they pertain to breastfeeding and its promotion and support. Model industry programs will be implemented statewide, and corporate and union leaders will be educated about breastfeeding. Day Care facilities' policies will be developed and targeted to create supportive environments for mothers.

We are developing, through having health care providers attend training programs, community networks that include support groups, telephone consultation, and breastfeeding education in prenatal and childbirth education groups.

We are planning promotion activities targeting low-income and minority women through WIC and MCH programs. This will include routine counseling and education for all clients and development of policies concerning breastfeeding for school-based clinics. Breastfeeding information will be distributed at the Black Expo health fair; this event should reach 10,000 people.

EVALUATION: A number of sources will be utilized to evaluate the change in breastfeeding practices in Indiana. Data from the Ross Mother's Survey that were used initially to define the problem are available to evaluate changes in the incidence and duration of breastfeeding. Other sources of information are WIC and MCH program data, which will evaluate changes among low-income and inner-city women. Since January 1988, data from birth certificates have been available pertaining to breastfeeding in the hospital.

Evaluation of specific activities of the program will be completed. A statewide public opinion survey (conducted by Indiana University Public Opinion Laboratory) will evaluate the effectiveness of the mass media campaign. Surveys of hospitals and health professionals will evaluate changes in policies and practices in the health care systems. Similarly, surveys will evaluate changes in day care facilities and industry concerning breastfeeding policies.

Tracking of planned activities is done weekly by the director and coordinator, and monthly at a meeting of all project staff and State Board of Health consultants.

EXPERIENCE TO DATE: The activities of the project have progressed through the work of its three subcommittees.

Media/Consumers Subcommittee: We have initiated a breastfeeding public awareness campaign. The materials being used were developed by a marketing agency and include four television public service announcements, three posters, a brochure, and a promotional video. The slogan for the campaign is "Breastfeeding...for all the right reasons." The issues that are focused on by the campaign are the health benefits, the cost savings, and the convenience of breastfeeding, as well as the mother's ability to return to prepregnant shape faster. To kickoff the campaign, activities were held across the state in March 1988, which included public forums, displays at shopping malls, and television appearances. Newspaper articles appeared in numerous cities. Specialty items including buttons, balloons, bumper stickers, and banners boasted the campaign's slogan and toll-free phone number for the public's use.

Health Care Systems Subcommittee: We completed a survey of physicians and hospitals to evaluate breastfeeding management practices and to assist in developing the training curriculum for health professional education programs. The training is underway. The WIC and MCH program staff, hospital nursing staff, physicians and their office staff, dietitians, and health professional students are being targeted for the training sessions. A reference book entitled *Breastfeeding: A Problem-Solving Manual* is being distributed and used in the training.

Day Care/ Industry Subcommittee: A completed survey of employers has reinforced the need to target the work place for breastfeeding promotion. We are contacting interested employers to provide further information and we have set a goal of developing ten model worksites. A handbook for employers to educate them about why and how breastfeeding can be supported in the workplace is being developed. In addition, a packet of educational materials for employed women during pregnancy is being developed.

Other Activities: The Breastfeeding Philosophy Statement has been mailed to hospital administrators, directors of nursing in hospitals, physicians, school nurses, public health nurses, MCH and WIC program administrators, and day care providers in an effort to educate them about the State Board of Health's stance on breastfeeding and to encourage their involvement with promotional activities.

Alameda County Infant Feeding Project
Alameda County Health Care Services
Agency
Highland General Hospital
1411 East 31st Street
Oakland, CA 94602
(415) 532-0275

MCJ-063857
10/01/86—09/30/89
Project Directors:
Janis Burger, M.P.H., R.D.
Art Reingold, M.D.

PROBLEM: Low-income communities in our nation have higher than average rates of infant mortality and morbidity. At the same time, women from the lower socioeconomic strata of our society are breastfeeding in smaller numbers than more affluent women. Recent studies in industrialized nations indicate that formula-fed infants are at higher risk for certain illnesses. In light of this information, it is advisable to promote breastfeeding within low-income populations in order to improve their infants' health and nutritional status.

Because developed countries have conducted few infant morbidity studies which have not suffered from important methodological problems, and because there are no morbidity studies of infants from low-income groups, appropriate studies are needed for future policy recommendations.

GOALS AND OBJECTIVES: The goals of the project involve the counseling and interviewing of new mothers and studying the offspring of women delivering at the county public hospital (Highland General Hospital—HGH). The vast majority of women giving birth at HGH have very low incomes, are from high-risk areas for infant mortality, and belong to an ethnic or cultural minority. Goal one is to maintain the rates of breastfeeding at hospital discharge at 65 percent and to increase the rates of breastfeeding at three and six months postpartum by providing staff training to targeted perinatal health providers, taking part in community outreach activities, and giving comprehensive breastfeeding counseling to lactating women who delivered at HGH. Goal two is to produce a report documenting those factors having a significant impact on decisions to initiate and continue breastfeeding in a low-income, ethnically diverse population. Goal three is to produce a report documenting the correlation between infant feeding method and incidence of infant morbidity in our population. The latter two goals will be achieved by conducting an extensive study of approximately 2000 consenting women, both in the hospital and at six intervals during the baby's first year.

METHODOLOGY: From 1981 through June of 1986, the Breastfeeding Project, funded by California State Department of Health Services, provided breastfeeding counseling and support to women giving birth at HGH. Special attention was focused on the two-week postpartum period, when difficulties in breastfeeding can contribute to a woman's decision to discontinue. The baseline rate of breastfeeding at discharge from HGH in 1980, prior to the project, was 48 percent. This rate rose to 73 percent in 1981, and maintained at an average of 71 percent for the four years of operation. Approximately 50 percent of the women breastfeeding at discharge were still breastfeeding at three months. Inhospital breastfeeding rates decreased to 56 percent for various reasons, and our current project is attempting to influence factors within our control by raising those rates through extensive counseling and followup calls.

Baseline assessment of the nurses' and the perinatal health providers' knowledge and practice will provide a basis for educational sessions. These will be in the form of presentations at clinic staff meetings, workshops in the hospital, and a major conference. Other forms of outreach and provider education will include working with community groups which promote breastfeeding, disseminating breastfeeding patient materials and provider updates to clinics, participating in WIC meetings, and so forth.

To conduct the study we will:

1. Obtain informed consent from and enroll each new breast or bottle-feeding mother who meets study criteria;
2. Coordinate translation for Asian languages;
3. Conduct the interview and counsel breastfeeding mothers as appropriate;
4. Check and process initial and followup questionnaires so that the participants can be tracked for future interviews;
5. Conduct phone or home visit followup interviews and followup counseling;
6. Facilitate key entry for questionnaries onto a mainframe computer;
7. Perform medical chart review and key entry; and
8. Perform statistical analysis and develop reports.

EVALUATION: Manual and computerized tracking systems are being used to assure appropriate questionnaire followup. Activity tracking sheets are used to track other project activities. The hospital nursery log is tabulated quarterly to assess breastfeeding rates and participant enrollment. Breastfeeding duration rates will be evaluated in the final project year as will preliminary morbidity data.

EXPERIENCE TO DATE: Approximately 1700 women have been enrolled in the study, and June 30, 1988 marked the end of the enrollment period. Women already enrolled will continue to be followed until June 30, 1989. We estimate a current 20 percent loss to followup rate in the year after enrollment largely due to the mobility of the population and the high incidence of drug use. The breastfeeding rate in the hospital has maintained at about 60 percent. We attribute this reduced rate from previous years to the increased number of patients with no prenatal care and the large incidence of drug addiction in the present population. We have not yet been able to do an analysis of breastfeeding duration.

We have completed inhospital and prenatal protocols. We are planning ways to find funding for continued breastfeeding counseling in the hospital. The thrust of the final project year will be continued followup interviews, the medical chart review, analysis of data and report development, implementation and expansion of inhospital counseling in the county and promotion throughout the State, and provider education aimed at those whose patients deliver at HGH as well as those who practice throughout the region.

Nutritional Status, Pregnancy, and Lactation
National Academy of Sciences
Institute of Medicine
2101 Constitution Avenue, N.W.
Washington, DC 20418
(202) 334-1917

MCJ-116011
10/01/87—09/30/90
Project Director:
Carol J. Suitor, D.Sc.

PROBLEM: In April 1987, the Division of Maternal and Child Health of the Health Resources and Services Administration, the sponsor of two earlier Food and Nutrition Board (FNB) Committees and a series of studies on maternal and child nutrition, requested that the FNB reestablish a committee in maternal nutrition and lactation. From 1970 to 1982, the FNB Committee on Maternal Nutrition and its successor, the Committee on Nutrition of the Mother and Preschool Child, produced a series of 13 reports. The first of these, *Maternal Nutrition and the Course of Pregnancy* (NRC, 1970), consisted of an evaluation of the scientific basis for assessing nutritional status during pregnancy and recommendations for weight gain and nutrient intake. Subsequent reports were entitled *Laboratory Indices of Nutritional Status in Pregnancy*, *Nutritional Supplementation and the Outcome of Pregnancy*, and *Nutritional Services in Perinatal Care*. Since the committee was disbanded in 1982, there have been substantial advances in the state of knowledge relating to maternal nutrition, and the Office of Maternal and Child Health believes, and the FNB agrees, that there is a need to reevaluate the vast data base on the subjects of weight gain during pregnancy, the need for nutrient supplements during pregnancy, and the nutritional needs of lactating mothers.

GOALS AND OBJECTIVES: The Committee on Nutritional Status During Pregnancy and Lactation was established in 1988 to evaluate and document the current scientific evidence and propose recommendations pertaining to dietary intake and nutritional status during pregnancy and lactation. In the course of the three-year project period the committee will oversee and direct the work of three subcommittees that will propose recommendations for:

1. Weight gain during pregnancy, taking into consideration maternal weight prior to pregnancy;
2 Dietary intake and the need for dietary supplements during pregnancy and lactation; and
3. Dietary recommendations to maintain and improve maternal nutritional status during lactation.

Because certain subgroups of the population are at increased risk for nutritional problems, to the extent that data permit, we will consider the applicability of the above recommendations to adolescents, women over age 35, black and Hispanic women, and women of Southeast Asian origin. Members of the committee include experts in the fields of nutritional science, nutrition education and programs, anthropometry, obstetrics, pediatrics, lactation, adolescent physiology, and epidemiology.

The Subcommittee on Nutritional Status and Weight Gain During Pregnancy will evaluate the scientific evidence and formulate recommendations for desirable weight gain, taking into account the nutritional status of the mother prior to pregnancy. The assessment of nutritional status during pregnancy will also be examined.

A reappraisal of the ability to meet nutrient requirements during pregnancy through dietary intake alone will be performed by the Subcommittee on Dietary Intake and Nutrient Supplementation During Pregnancy.

The Subcommittee on Nutrition During Lactation will evaluate the literature on nutritional needs of lactating women and the impact of maternal dietary intake on milk volume and composition. It will also consider the impact of maternal nutritional status during lactation and will develop recommendations for enhancing nutritional status during lactation.

METHODOLOGY: In the course of its work, the committee is conducting a public meeting and a series of workshops to seek input from a large community of health and nutrition planners and scientists. This will enable the committee and its subcommittees to ensure that their reports are relevant to the needs of nutrition professionals, nutrition and health planners, scientists, and other policymakers and will foster wider dissemination and implementation of the results. The FNB is consulting with the Institute of Medicine and the Commission on Behavioral and Social Sciences and Education on the formation of the committee and subcommittees and conduct of the study. The committee is under the aegis of the Food and Nutrition Board.

Efforts are underway to create an awareness of the study both within the scientific community and among those responsible for implementing study findings. As part of this effort, there will be presentations at scientific meetings and at press briefings, and copies of the committee's report will be mailed to professional journal editors to encourage reviews and wider dissemination of the report.

EVALUATION: Progress reports have been issued to the Food and Nutrition Board and to the Commission on Life Sciences of the National Research Council.

EXPERIENCE TO DATE: The parent committee has been formed and two meetings and a workshop have been held. In addition, the Subcommittee on Nutritional Status and Weight Gain During Pregnancy has been formed and one meeting has been held. The Subcommittee on Dietary Intake and Nutrient Supplementation is forming and will soon have its initial meeting.

The purpose of the Workshop on Policy and Programmatic Issues in Implementing Nutritional Recommendations for Pregnant and Lactating Women was similar to that for the previously proposed public meeting: to enable the committee to gather information from a variety of sources and to ask questions pertaining to the implementation of nutritional recommendations for pregnant and lactating women. Speakers represented a wide range of experiences and viewpoints. Among those in attendance were policymakers, representatives of professional organizations, program directors, and frontline nutrition counselors. Federal, State, and local government-sponsored programs were also represented.

Finally, over three thousand press releases announcing the start of the study have been sent to the media and to maternal nutrition professionals.

Research Projects

Determinants of Infant Feeding: Breast vs. Bottle
The Johns Hopkins School of Hygiene and Public Health
615 North Wolfe Street
Baltimore, Maryland 21205
(301) 955-6498

MCJ-360544
10/01/86—03/31/88
Project Director:
Ruth Faden, Ph.D.

PROBLEM: There is considerable evidence that breastfeeding is medically, nutritionally, and psychologically the best method of feeding human infants. Of particular importance from the perspective of infant health is the persistence of realtively low rates of breastfeeding among less well-educated, poor, and minority women. Despite the benefits of breastfeeding, little controlled data exist on those factors that influence a woman's decision to breast or bottle feed and on why so few women continue to breastfeed beyond the early postpartum weeks.

GOALS AND OBJECTIVES: The principal aim of this study was to identify the major determinants of infant feeding behavior in new mothers, and, for those mothers electing to breastfeed, to ascertain the major determinants of the duration of breastfeeding.

METHODOLOGY: This study used a six group, 2 X 3 prospective design in which the sample was stratified by two levels of race (black, white) and three levels of education(< high school, high school, and > high school). An attempt was made to recruit roughly equal numbers of breast and formula feeders in each stratum. Two samples were recruited. The city sample was obtained from 44 private and public obstetrical care sites in Baltimore City; the rural sample was obtained from five local health department prenatal clinics in the Eastern Shore counties of Maryland. Study participants were recruited from March 1985 through August 1986. All interviewing was completed by April 1987.

Baltimore City women enrolled in the study were interviewed by telephone once during the third trimester of pregnancy, and three times postpartum (at two weeks, six weeks, and six months). A random subsample of these women received only the three postpartum interviews and were designated the control group. For the Baltimore City sample, a random subsample of "significant others" also received one prenatal interview. Eastern Shore women enrolled in the study completed the prenatal and first two postpartum interviews; women who were breastfeeding at the second postpartum interview were also interviewed at six months postpartum. The Eastern Shore interviews were done by telephone (60 percent) or in person (30 percent) because many women in this sample had no telephones.

Two additional data sources were used in this study: personal interviews were conducted with obstetricians and pediatricians who provided care to some of the Baltimore City study participants.

FINDINGS: For both black and white women, breastfeeding rates increased with increasing years of education. Among those with a high school or better education, white women were significantly more likely than black women to carry out their prenatal intention to breastfeed, as were better educated women of both races.

Data from the women interviewed prenatally were analyzed to assess the utility of the Fishbein and Ajzen theory of reasoned action for understanding infant feeding intentions and behaviors. We also included two variables not incorporated in this theory -- social learning and previous behavior. The inclusion of a social learning variable improved the capacity of the Fishbein and Ajzen model to predict behavior, but not prenatal intention. For multiparous women, whether they had breastfed their other children (previous behavior) also contributed to the prediction of both intention and behavior. Differences in the belief structures of women who breast and formula fed their infants support the utility of the Fishbein and Ajzen theory in identifying women for intervention efforts.

Data from the women interviewed prenatally who stated an intention to breastfeed were analyzed to assess predictors of early breastfeeding cessation. Among women who initiated breastfeeding, four variables were identified as significant predictors of failure to breastfeed for more than seven days: lower prenatal scores on confidence in ability to breastfeed, less certainty in the decision to breastfeed, delayed first breastfeeding, and not having the baby rooming-in.

From the sample of pediatricians interviewed, we found that one-half of them recommended breastfeeding to their patients. Respondents with more favorable attitudes and beliefs about breastfeeding recommended breastfeeding to their patients more frequently than those with less favorable attitudes and beliefs.

From the sample of obstetricians interviewed, we found that over one-quarter of them did not routinely recommend breastfeeding to their pregnant patients. Almost one-third of the sample only discussed infant feeding if patients inquired, and a majority of respondents noted that few patients do in fact ask questions.

RECOMMENDATIONS: The results of our study further support the position that there are substantial ethnic and cultural influences on infant feeding practices which are independent of level of education. These findings reinforce the need for breastfeeding promotion interventions designed with sensitivity to cultural variations in infant feeding decisions. Beliefs about the relative ease, convenience, and freedom for the mother of the two infant feeding methods seem particularly important in distinguishing breastfeeding from formula feeding women. This information should be valuable in addressing target beliefs in persuasive communications and mass media efforts.

Breast and formula feeding women differ in their perceptions of what their relatives and friends prefer them to do. They already believe that their health care providers prefer them to breastfeed, although they differ in their perceptions of how strongly their physicians prefer breastfeeding. Family members, friends, and health professionals should all be encouraged to take an active role in facilitating breastfeeding.

Attention to readily available information about patients, such as race and education, would permit health care providers to target limited intervention resources to those who prenatally intend to breastfeed but are at highest risk of never trying breastfeeding or quitting early. Obtaining limited additional information, such as when in pregnancy the patient decided to breastfeed, may substantially improve providers' ability to target special attention to high risk women.

Breastfeeding promotion interventions should address at least four areas:

1. Prenatal patient education to strengthen the commitment to breastfeeding and the confidence with which patients approach it;
2. Increased hospital encouragement of early and continuing contact with the newborn;
3. Anticipatory guidance prior to hospital discharge to dispel any misconceptions and to provide reinforcement for continuing success; and
4. Early pediatric followup to continue reinforcement and to address specific breastfeeding problems.

Consistent educational messages in comprehensive programs that begin prenatally and continue through the postpartum period should be developed and evaluated.

Opportunities should be widely available for women to have an ongoing dialogue during pregnancy with both their obstetrician and pediatrician so that breastfeeding decisions can be encouraged and reinforced. Similarly, early and continuing assistance postpartum could help prevent early breastfeeding failure. The uniform inclusion of breastfeeding information in medical and nursing school curricula should be promoted to assure that health care providers have sufficient training in lactation management and feel comfortable advocating breastfeeding. Obstetrical and pediatric care providers should use their policy making authority to the extent possible to assure that hospital maternity service policies minimize any unnecessary delays in the first breastfeeding experience and maximize the amount of time the mother and newborn spend together during the hospital stay.

Future studies should address the description of breastfeeding education practice patterns in the wider health care provider community. Particular attention should be paid to clinics and health care delivery sites that serve disadvantaged populations. The effects of continuing education on providers' breastfeeding attitudes and practices should be evaluated. In addition, studies are needed to evaluate the effect of patient education activities and hospital policy changes on women's beliefs and attitudes about breastfeeding and their adoption of this infant feeding method.

The Relationship Between Infant Feeding and Infections

Albert Einstein College of Medicine
Bronx, NY 10461
(212) 430-8580

MCJ-360544
10/01/86—03/31/88
Project Director:
David H. Rubin, M.D.

This study seeks to determine whether breastfeeding protects against common infectious illnesses during the first 12 months of life. The data have already been collected in an investigation conducted in Copenhagen, Denmark where the investigator was a Fulbright Fellow. The data were collected prospectively on a cohort of 500 Danish infants followed every month from birth until 12 months.

Acculturation, Psychosocial Predictors, and Breastfeeding

MCJ-480555
04/01/87—03/31/90

University of Texas Medical Branch
Department of Pediatrics
Route C-51
Galveston, TX 77550-2774
(409) 761-1139

Project Director:
David Keith Rassin, Ph.D.

The long term objective of this project is to increase the incidence and maintenance of breastfeeding in a United States-Mexico border population (Brownsville, Texas). Specifically, the population will be characterized by demographic factors with respect to ethnic background and degree of acculturation (from Hispanic to Anglo and from Anglo to Hispanic). A number of psychosocial variables will be measured to assess their importance in the initiation of breastfeeding, including: social support/influence, the role of a doula (breastfeeding comforter and instructor), the behavioral capability of the mother, maternal perceived self-efficacy, the presence of environmental constraints in the hospital and home, and maternal attitudes toward breastfeeding. Based upon our previous research, we expect that these psychosocial factors will vary in importance depending upon maternal ethnicity. Further, we hypothesize that within ethnic groups the degree of acculturation will be associated with variations in the importance of these variables to breastfeeding behavior.

The proposal is designed to refine and develop the instruments using a small feasibility study (approximately 250 subjects), followed by a period of instrument adjustment. For the primary study (approximately 1500 subjects) data relative to the above variables will be collected 2 months prenatally (to evaluate the decision process before the fact), at birth (to evaluate initiation), and at two-to-three weeks postnatally (to evaluate the short-term success or failure of initiation). A pilot study at four months postnatally will evaluate the potential of assessing maintenance of breastfeeding in this population. The data will be analyzed within ethnic groups by degree of acculturation. The relative importance of the interaction of the demographic, environmental, social, and behavioral factors will be determined relative to the initial decision to breastfeed. Interviewers will gather data regarding demographic information (education, income), social support/influence (actors in the mother's decision to breastfeed), attitudes to breastfeeding, behavioral capability to breastfeed, perceived self-efficacy for breastfeeding, role of the doula, environmental constraints, infant and maternal health, prenatal care, and influence of the male partner on the breastfeeding decision.

The project is the first stage of a series of investigations whose goals are:

1. To define the reasons why mothers elect to breastfeed, the factors important to the maintenance of breastfeeding, and infant health and nutritional status as a function of breastfeeding; and
2. To improve the incidence of breastfeeding in the target population.

Increasing the incidence of breastfeeding in this population would be expected to reduce the economic burden of other forms of infant nutrition and to improve infant health.

Training Projects

Lactation Management
University of California
San Diego, CA 92103
(619) 294-3920

MCJ-009108
10/01/87—09/30/89
Project Director:
Suzanne Dixon, M.D.

The ultimate goal of this project is to develop and maintain the expertise of State maternal and child health (MCH) staff in the management and support of lactation and breastfeeding. More specifically, this program prepares multidisciplinary teams of MCH professionals to function as education, training, and program specialists in lactation and breastfeeding management. In addition, staff are prepared to assist with designing, reviewing, and providing critiques of existing and future breastfeeding promotion projects and proposals within their home States and regions.

Infant Feeding and Growth—U.S.-Related Pacific Islands
University of Hawaii
Honolulu, HI 96822
(808) 948-8832

MCJ-009106
10/01/87—09/30/90
Project Director:
Gigliola Brufil, M.D.

The purpose of this project is to offer a continuing education program on human lactation, infant feeding, and growth monitoring to health personnel in the United States-related Pacific Islands. It is part of a broad effort to increase breastfeeding incidence and duration and to monitor infant and child growth.

Study Group on Human Lactation and Breastfeeding
University of Rochester
Rochester, NY 14627
(716) 275-4354

MCJ-009104
10/01/87—09/30/90
Project Director:
Ruth Lawrence, M.D.

This project is designed to support the efforts of the OMCH to assure that reliable information on matters related to human lactation and breastfeeding is readily available to Title V Maternal and Child Health programs and to the professionals in the community at large. A study group will be established which will serve as the national focal point for technical assistance and consultation related to the identification and quantification of emerging national issues with the potential for impact on human lactation and breastfeeding, the identification and evaluation of unusual maternal and infant problems associated with breastfeeding, and the study and evaluation of educational strategies and resources.

STATEMENT OF CONNIE M. WEAVER, PROFESSOR, DEPT. FOODS AND NUTRITION, PURDUE UNIVERSITY

Mr. Chairman, members of the Committee, I appreciate this opportunity to participate in this hearing on the reauthorization of the Child Nutrition Programs and the Special Supplemental Food Program for Women, Infant, and Children (WIC). I shall confine my comments to the WIC commodity package, specifically the value of allowing meats in these packages. The criterion for eligibility for food support through WIC suggests that WIC participants are in the final stage of iron depletion known as iron deficiency anemia. Therefore, iron contribution is a primary consideration for evaluating food sources for government programs.

The Recommended Daily Allowances of Iron for individuals eligible for WIC are:

	Age (yrs)	Iron (mg/day)
Infants	0.5-3	15
Children	4-10	10
Females	11-50	18

The average nutrient intake of women aged 19-50 in the U.S. is 56% of the Recommended Dietary Allowance (1).

The iron content of a food is not always a good predictor of the iron contribution of a food because of large variation in the percentage absorbed from different foods. Women need to absorb 1.2-1.4 mg iron per day to meet their physiological needs. The Recommended Dietary Allowance (RDA) is about 15 times higher than that because food iron is not very well absorbed. The range in iron absorption from different foods is from <1% to >35%. Iron absorption is higher when absorption enhancers are present. The two known food enhancers to iron absorption are ascorbic acid and animal tissue (meat, fish and poultry). Iron absorption is inhibited by constituents which bind iron and decrease the solubility. Two well known inhibitors are tannins in tea and phosphoproteins in egg yolk. Some iron salts used for iron fortification are not very soluble, and thus, are poorly absorbed. Furthermore, iron absorption depends on the iron stores of individuals and the level of iron in the diet. Individuals with low iron stores absorb iron more efficiently than those with adequate stores.

Precise iron absorption values for individual foods are unavailable because of the many factors which affect absorbability of this nutrient. I, however, have used relative values for cereal, meats and eggs to calculate a cost efficiency comparison of iron from selected foods currently allowed in the WIC commodity package (Table 1). The cost per milligram of absorbable iron from hamburger compares favorably with eggs and many of the iron fortified cereals currently allowed in the WIC commodity package. The percent of iron absorbed from meat is much higher than from cereals and eggs. Part of the iron in meat is present as hemoglobin and myoglobin (heme iron) which is absorbed 1.5-8 times better than nonheme iron. Addition of meat, poultry, and fish to a diet may more than double iron absorption from nonheme iron in the rest of the diet because of the presence of an unidentified "meat factor" which enhances iron absorption (4). This enhancing factor is not present in other foods of animal origin such as milk and eggs. If the enhanced iron absorption from cereals was factored into my cost calculations, the value of meat in the diet would become even more apparent. Iron fortified cereals provide the most available iron if they are fortified to 100% of the U.S. RDA or if they contain both iron plus ascorbic acid.

The cost of energy from ground beef (0.15¢)/calorie) is also within the range of cost from cereals (0.11-0.17¢/calorie). Meat has more protein (7.6 mg/oz.) than is found in eggs (3.7 g/oz) or cereal (2 g/oz.) and the quality of protein is better than that in cereals and less cholesterol than eggs, but more fat and less fiber than cereals. The contribution of zinc from these cereals ranges from less than 2% to 100% of the U.S. R.D.A. per ounce of cereal, whereas, ground beef provides 7.4% of the U.S. R.D.A. per ounce.

Infant cereals are currently fortified with electrolytic iron powder. Absorption of iron from this source is very poor, less than 5% of that of ferrous sulfate (7). Iron from iron sulfate used to fortify infant cereals is absorbed at approximately 2.7% and from infant formulas 3.4-5.4% (8). Cereal/fruit baby foods fortified with ferrous sulfate would provide infants with more absorbable iron than currently marketed iron fortified cereals (9). Ascorbic acid added prior to processing of infant foods and stored in the presence of iron has not been demonstrated to have an enhancing effect on iron absorption (6).

A balanced diet containing foods from each food group is a sensible approach to good nutrition.

References

1. U.S.D.A. Nation wide Food Consumption Survey. 1985.
2. Knight Ridder. Financial News released May 27, 1989 for the week of May 22, 1989 averaged from 9 cities.
3. Nutrient Values of Muscle Foods. National Live Stock and Meat Board. 1984.
4. Monsen, E. Simplified method for calculating available dietary iron. Food and Nutrition News. 51 (No. 4.), March-April 1980.
5. Rees, J. M. and Monsen, E.R. Absorption of fortification iron by the rat: Comparison of type and level of iron incorporated into mixed cereal grain. J. Ag. Fd. Chem. 21:913-915, 1973. Also personal communication with James Cook, M.D. Division of Hematology, Dept. Medicine, University of Kansas Medical Center, Kansas City, KS 66103.
6. Layrisse, M. and Martinez-Torres, C. Food iron absorption: Iron supplementation of food. Prog. Hematol. 8:137-160, 1971.
7. Elwood, P.C. Radioactive studies of the absorption by subjects of various iron preparations from bread. Reports on Public Health and Medical Subjects, No. 117, H.M. Stationary Office, London, 1968.
8. Rios, E., Hunter, R.E., Cook, J.D., Smith, N.H. and Finch, C.A. The absorption of iron as supplements in infant cereal and infant formulas. Pediatrics 55:687-693, 1975.
9. Samuel Fomon, M.D. Personal communication. University of Iowa, Iowa City, IA.

Table 1. Cost of Cereals, Meat, and Eggs, as a Source of Iron

Cereal	Cost (¢/oz)[a]	Iron (mg/oz)[b]	Cost (¢/mg) Iron[c]	% Abs. Iron	Vit. C (mg/oz)[d]	Cost (¢)/mg abs. Iron
Product 19	19	18	1.1	2.5	60	44
Branflakes	13	18	0.7	2.5	<1.2	28
Squares	16	8.1	2.0	2.5	<1.2	80
Team Flakes	16	8.1	2.0	2.5	15	80
Grapenut Flakes	16	8.1	2.0	2.5	<1.2	80
Life	15	8.1	1.9	2.5	<1.2	76
Corn Chex	19	8.1	2.3	2.5	15	92
Total	20	18	1.1	2.5	60	44
Kix	19	8.1	2.3	2.5	15	92
Meat						
Ground beef	7.6	0.50	15	26	--	58
Ground chuck	10.4	0.55	18.9	26	--	73
Eggs	4.1	0.65	6.3	8	--	79

---

[a] National average cost for meats from reference (2).

[b] Iron added to cereals is in the form of elemental iron, typically hydrogen reduced. Iron content of cereals was taken from nutrient labels on boxes and for meat from reference (3).

[c] Iron absorption from cereal (nonheme iron) consumed without enhancing factors (ascorbic acid meat, fish, or poultry) is assumed to be 5% for individuals with no iron stores (4). However, iron absorption from elemental iron used to fortify cereals is potentially much less and varies considerably from batch to batch depending on the particle size. Absorption could range from <1% to 5%. For these calculations, absorption from reduced iron was assumed to be half that of nonheme food iron or ferrous sulfate (5). Absorption of iron from meat was based on the method of Monsen (4) assuming 40% of the iron to be heme iron absorbed at 35% and 20% of the nonheme iron absorbed by individuals with no iron stores. Absorption of iron from eggs was taken from reference (6).

[d] Ascorbic acid enhances iron absorption. Thus, iron absorption from cereals consumed with ascorbic acid rich juices could be improved to 10%. However, data is not available on the effectiveness of ascorbic acid added to dried, iron fortified cereals for enhancing iron absorption. Therefore, ascorbic acid content was not used to adjust % absorbable iron from cereals. If 100% of the U.S. RDA for ascorbic acid raises iron absorption to 10%, then the cost (¢)/mg absorbable iron would be 11¢ for Product 19 and Total.

Statement of Suzanne Hendrich, Ph. D., Assistant Professor, Food and Nutrition, Iowa State University, Ames, IA.

Mr. Chairman, members of the committee, thank you for inviting me to testify on the subject of changing the WIC program commodity package. Can the nutritional status of WIC program participants be improved by changing the WIC commodities package? Picture the following scenario: a mother and her young child, age 2 years, are receiving the following commodity supplement package each month: four and one-half gallons of milk, 2 pounds of cheese, a dozen eggs, 36 ounces of cereal, 18 ounces of peanut butter and 276 ounces of fruit juice. These supplements plus a weekly food budget of around fifty dollars would provide in a typical day 0.6-0.9 mg absorbable iron to the mother, and 0.3-0.4 mg to the 2 year old, representing only 50% and 70%, respectively, of their estimated daily iron requirements (the mother requires 1.5 mg/day, and a 2 year old child requires 0.5 mg/day). The mother feels tired and irritable, has difficulty concentrating on her studies in a job training program, and has a low work capacity. The child is also fatigued and over-irritable and has poor attention span and diminished learning ability.

Does this picture represent a failure of government aid programs? I would say, emphatically, "Yes", in a very specific context. The picture I've described is particularly symptomatic of iron deficiency. Lack of iron impairs the body's ability to carry oxygen to the brain, muscles and other organs. Iron deficiency lessens human work capacity and learning ability significantly. There is more substantial evidence for the role of iron in learning than for any other nutrient (Vyas and Chandra (1984), Pollitt et al. (1986)). There is evidence that iron deficiency is among the most common and is probably the most debilitating of nutritional deficiencies in the United States. The prevalence of impaired iron status among 15-19 year old women is estimated to be 3% of whites, 12% of African-Americans, and 6-12% of Hispanic-Americans and among 20-44 year old women, 5% of whites, 6% of African-Americans and 10% of Hispanic-Americans (Looker et al., 1989). Conventional nutrition wisdom has often suggested that blacks have lower iron status than whites due to inherent racial differences. Recent evidence comparing the iron status (hemoglobin values) of black and white military personnel in an environment which insures similar nutrient intake among both groups suggests that the magnitude of the difference between blacks and whites is much less than previously supposed, and that greater differences are probably primarily due to nutrient intake (Jackson et al., 1983)!

It is clear that iron deficiency is widespread in the United States, especially among the poor, that already disadvantaged populations in this country are being put to an even further nutritional disadvantage WHICH HAS SERIOUS INTELLECTUAL AND ECONOMIC CONSEQUENCES, and that government intervention is needed to remedy this problem.

What intervention strategies would be most effective? An ideal society would make three provisions:

1) nutrient deficiency screening and treatment through a national health care delivery system,
2) an abundant and nutritious food supply,
3) adequate nutrition education.

Iron supplementation in pill form or higher levels of iron fortification or supplementation of common foods should be rejected for the following reasons:

a) It is difficult to ensure safety and dose compliance with the use of iron supplements. Many people irrationally believe that if a little is good a lot will be better--iron in high doses can be very toxic, resulting in a disease called hemosiderosis.

b) In addition, a small percentage of the population (0.3% of males in the U. S.) is genetically predisposed to hemochromatosis, another iron toxicity disorder. Further population-wide iron fortification or supplementation may be harmful to these individuals.

A simple and effective solution may be to target populations especially at-risk (economically disadvantaged women and their small children) with dietary changes that would be fairly easy and relatively inexpensive to accomplish. Changing the WIC commodities package to include meats is one approach to consider. Some of the leanest cuts are least expensive, and animal flesh foods, because of their high nutrient content, actually can be a good bargain compared to cereals, based on the amount of the food needed to supply nutrients. Not only do meats, especially beef, pork and lamb contain high amounts of iron, but the form of iron in all animal flesh foods, heme iron (as found in hemoglobin and the muscle protein, myoglobin) is 5-8 times more readily absorbed than the iron in plant foods. Heme iron can also significantly increase the absorption of iron from plant foods when eaten in the same meal (Monsen et al., 1978). For example, adding one 3 ounce serving of lean meat can increase absorbed iron from 0.25 mg to 0.75 mg per meal in an iron-deficient woman. This could increase daily iron absorption by two-thirds (from 0.75 mg/day to 1.25 mg/day, assuming three meals). This would bring the woman much closer to her required daily iron intake (about 1.5 mg/day). The inclusion of two pounds of lean beef or pork per month would increase absorbable iron by about 0.3 mg per day (0.75 + 0.3 = 70% of a woman's requirement). The inclusion of 4 pounds of meat per month would increase absorbable iron by about 0.6 mg per day (0.75 + 0.6 = 90% of requirement). Chicken or fish would also improve iron status, but not as significantly, as they contain less total iron. Increasing the amounts of foods high in vitamin C can also improve iron absorption. My calculations have taken into account the presence of vitamin C-rich juices in the current WIC package. To further improve iron absorption, more vitamin C-rich fruits, vegetables or juices would need to be included. Substituting meat for eggs and/or peanut butter in the WIC package will provide higher dietary iron content, without compromising the protein or other nutrient status of participants. The inclusion of meats would, however, represent a significant management problem, because meat labeling currently provides very little information regarding the nutritional quality of the product. Very lean cuts of meat would provide the best nutritional value. Though my comments are directed specifically to improving iron nutriture, as I believe this is a crucial nutritional problem in the U. S., it should be noted that the WIC commodities package in its present form does not effectively assist participants in meeting vitamin A and zinc requirements. Including meat is very likely to improve zinc nutriture, but vitamin A must be obtained from other sources, notably carrots and other yellow and dark green vegetables.

In summary, the inclusion of moderate amounts of lean meats (approximately one-half to one pound per week) in a monthly WIC package could be expected to significantly improve the iron status, and therefore the intellectual and work capacities of the most economically disadvantaged of Americans: single mothers with small children.

References:

Jackson RT, Sauberlich HE, Skala JH, Kretsch MJ, Nelson RA (1983). Comparison of hemoglobin values in black and white male U. S. military personnel. J. Nutr. 113: 165-171.

Looker AC, Johnson CL, McDowell MA, Yetley EA (1989). Iron status: prevalence of impairment in three Hispanic groups in the United States. Amer. J. Clin. Nutr. 49: 553-558.

Monsen ER, Hallberg L, Layrisse M, Hegsted DM, Cook JD, Mertz W, Finch CA (1978). Estimation of available dietary iron. Am. J. Clin. Nutr. 31: 134-141.

Pollitt E, Saco-Pollitt C, Leibel RL, Viteri FE (1986). Iron deficiency and behavioral development in infants and preschool children. Am. J. Clin. Nutr. 43: 555-565.

Vyas D, Chandra RK (1984). Functional implications of iron deficiency. In Stekel A., ed., Iron Nutrition in Infancy and Childhood. Nestle', Vevey/Raven Press, New York.

PREPARED STATEMENT OF EDWARD M. COONEY, DEPUTY DIRECTOR, FOOD RESEARCH AND ACTION CENTER, WASHINGTON, DC

Mr. Chairman, members of the committee, thank you for the invitation to testify before you today on the reauthorization of five important child nutrition programs. We support the reauthorization of the Summer Food Service Program for Children (SFSPC), the Nutrition Education and Training Program, the Special Supplemental Food Program for Women, Infants and Children (WIC), the State Administrative Expense Program, and the Commodity Distribution Program. I am Ed Cooney, Deputy Director of the Food Research and Action Center (FRAC), a nonpartisan center seeking lasting solutions to hunger, malnutrition and poverty in America. As a national organization based in Washington, DC, FRAC works with individuals, elected officials, religious groups, civic leaders, educators and the business community to solve one of America's most serious domestic problems.

Today, 40 percent of the 32 million Americans who live in poverty are children. Nearly one-fourth of all American children under the age of 6 are poor, and for minority children the rates exceed 40 percent.

The elimination of poverty in America is a complex, long-term undertaking. But, poor young children do not have time to wait for poverty to be ended. In the meantime, we can at least provide them with the nutrition they need so that they will be healthy and ready to learn when they enter school and have a fair chance to realize their full potential.

Mr. Chairman, we do have several recommendations which may assist the committee in crafting legislation which will meet the goal of good nutrition for our Nation's children and other vulnerable populations.

In summary, we recommend that:

- the $2.158 billion funding level for WIC assumed in the FY 1990 budget resolution be appropriated by Congress;
- certain private nonprofit sponsors be allowed to participate in the Summer Food Service Program for Children;
- startup funds be provided to schools which would like to have a School Breakfast Program;
- the authorization level for the Nutrition Education and Training Program be increased by 5 million each year for the next 4 years (up to $25 million);
- certain nutrition policy positions on the quality of meals served to children be adopted and encouraged by the Nutrition Subcommittee;
- certain noncost improvements be made in WIC and the Child Care Food Program; and
- the Community Food and Nutrition Program (CFNP) be funded at its full authorization level of $3 million.

DETAILED ANALYSIS OF FRAC'S RECOMMENDATIONS

1. *$2.158 Billion FY 1990 Funding Level for WIC.*—On June 1, we released two studies about the WIC Program. These studies are: *Feeding the Other Half: Women and Children Left Out of WIC* and *The Nutritional Status of Low-Income Preschool Children in the United States.* We believe that the information contained in these studies makes a persuasive case for fully funding the WIC Program over the next 4 to 5 years. One important step in this direction would be for Congress to actually appropriate the $2.158 billion funding level for WIC which is assumed in the FY 1990 budget resolution. This would provide benefits for an additional 300,000 low-income women, infants and children at nutritional risk.

As you know Mr. Chairman, despite the fact that WIC is a Federal program, it does not serve all of those who are eligible. Nationwide, only about half of the roughly 7.5 million women, infants and children who qualify are currently served. Through a grant from the Ford Foundation, FRAC undertook two studies to take a closer look at who the program does *not* serve and what the consequences are of not serving these individuals.

Our central finding is that young children—those between the ages of 1 and 5—are the least likely to receive the benefits of WIC. We estimate that, at best, only 38 percent of those children who are poor and at nutritional risk currently are served. Nearly 3 million eligible children nationwide have been left out of the program.

Our studies tell us further that the consequences of not serving these children are very serious. These children are in critical stages of development. Without the improved nourishment and increased health care associated with WIC participation, serious impairments to full physical and mental development can occur.

In a sense, young children, and in many cases, their mothers, in the WIC Program have become second class citizens. Because the program also serves other highly vulnerable populations—low-income infants and pregnant women—service to children and mothers has been deemed a lower priority. While this setting of priorities is appropriate when funds are limited, it has led some public officials and others to conclude that expanding benefits to other eligible populations is not important at all.

We believe that these studies make clear how terribly important it is to reach as many young children as possible through the WIC Program. Our studies do reinforce that reaching infants and pregnant women remain urgent priorities and that significant improvements are also needed in WIC services to these populations. But in addition, large numbers of children and breastfeeding and post partum women can be greatly helped by the benefits WIC provides.

In order to gain a more complete picture of WIC Program operations nationwide, FRAC undertook a written survey of State WIC Directors in 1988 and followed up with a telephone survey in April 1989. The WIC Directors confirmed what national program statistics tell us.

- Eighty-four percent of the WIC directors indicate that inadequate funding is a barrier to serving all people who are eligible and wish to participate.
- Nearly one-fourth (23 percent) of the States responding indicate that they cannot serve preschoolers above certain ages or who have inadequate diets but have not developed serious medical conditions; that is, they have been forced to set up arbitrary cut-off points for service due to a lack of funding to serve all who apply.
- About 30 percent of the reporting States limit the eligibility or duration of benefits for nonbreastfeeding post partum women. This means that many of these new mothers, who often enter their pregnancies in poor nutritional health, cannot receive the supplemental foods that could replenish their nutrient stores after delivery.

In order to better understand what kind of impact WIC participation might have upon low-income American preschoolers, FRAC asked Dr. Jonathan Kotch (who testified before the subcommittee on June 14) of the University of North Carolina School of Public Health to undertake a review of the literature on their nutritional status. The report highlighted four major findings:

(1) There is a clear relation between income and nutritional status. The lower the income, the less likely a child's family can provide a nutritionally adequate diet.

(2) The diets of low-income preschoolers tend to be adequate in quality—that is they generally eat the right kinds of foods—but are inadequate in quantity. In other words, families just cannot afford to buy enough food.

(3) In general, low-income children tend to be shorter and lighter, and are more likely to suffer from impaired iron status and anemia.

(4) Poor iron status is associated with poorer performance on standardized tests. Even mild undernutrition, if chronic, can lead to negative social and behavioral effects, increased illness and decreased ability to learn.

These findings are important because there is clear evidence that WIC works to counteract the problems created by poor nutritional status among low-income preschoolers. Research shows that WIC:

- improves the nutritional intake of pregnant women, infants and children;
- decreases the incidence of anemia;
- improves cognitive development in young children; and,
- improves the use of health care and immunization services by young children.

The latter is particularly important since 40 percent of American preschool children are not adequately immunized against major childhood illnesses.

The benefits of WIC for other target populations—infants and pregnant women—are well documented. Although services to these groups also must be expanded, it is young children who have been neglected.

We believe that the benefits of WIC participation are so great and the consequences of not serving eligible persons are so grave that all those who qualify and want to participate should be able to receive WIC benefits. The primary reason WIC does not reach its entire target population is inadequate funding.

Unlike many other means-tested programs, WIC is not an entitlement program. In an entitlement program, funding is provided for all who meet the eligibility guidelines and apply. With WIC, annual appropriations levels determine how many eligible people who apply can receive services.

There are a variety of means through which WIC participation can be increased, including State supplementation of Federal funding, expanded use of competitive bidding mechanisms for WIC food items, and the promotion of breastfeeding, which saves on food package costs. However, none of these approaches will lead to full WIC participation in the near future in the absence of a commitment to increased Federal funding.

We are now at a stage where modest, steady increments of Federal funding, perhaps 5 to 7 percent over inflation, over the next 4 to 5 years could result in serving virtually all who are eligible and wish to participate.

It is heartening that Congress has assumed a WIC increase of this magnitude in the budget resolution recently passed for fiscal year 1990. The budget resolution assumes an increase of $150 million over current services. The funding fate of WIC now rests in the appropriations process, where, in recent years, less funding has been provided than allowed in the relevant budget resolutions. The fact that 73 Senators (including a majority of Members on both sides of the aisle) signed onto a May 17 letter to the Chair of the Appropriations Committee in support of the full increase is a hopeful sign. We are also hopeful that this support will carry over into the appropriations process in the critical years ahead.

Over the last year and a half, there has been a groundswell of support for increased Federal funding for WIC in order to serve all of the eligible women, infants and children. The Department of Agriculture's National Advisory Council on Maternal, Infant and Fetal Nutrition made the recommendation in 1986 that funding for WIC be increased in incremental steps to serve 100 percent of the eligible women, infants and children by fiscal year 1992. Similar recommendations have been made by:

- The Committee for Economic Development (a group of more than 200 corporate executives and university presidents);
- The Council on Competitiveness (a group of corporate executives and education and labor leaders);
- The National Commission to Prevent Infant Mortality (a blue-ribbon panel chartered by Congress and chaired by former Senator Lawton Chiles);
- Former Presidents Gerald Ford and Jimmy Carter, in *American Agenda*, their 1988 report to the President-elect; and
- The Ford Foundation Project on Social Welfare and the American Future.

In addition, in early 1989, over 100 national organizations signed a petition calling for increased Federal funding of $150 million plus inflation each fiscal year for the next 4 to 5 years. This would allow approximately 300,000 more women, infants and children to be served by WIC nationwide in the first year alone. The list of petition endorsers includes groups such as the American Academy of Pediatrics, the National Association of WIC Directors, the National Milk Producers, Bread for the World, the National Education Association, the Center on Budget and Policy Priorities, and the Food Research and Action Center.

2. *Make Certain Private Non-Profit Sponsors Eligible for SFSPC.*—We recommend the inclusion of private nonprofit sponsors who:

- provide year-round services to children;
- have a demonstrated track record in administering State and Federal programs;
- prepare meals onsite or contract with a public vendor; and
- serve not more than 2,500 children (no more than 300 children at any one site except with State Agency approval of up to 500 children) at not more than five sites in urban areas with no limit on number of sites in rural areas.

There are 24 million children who receive a school lunch daily in the United States. Approximately 12 million of these children are low-income. USDA studies have shown that these children receive anywhere from one-third to one-half *of their total daily nutrient intake* from this lunch. The Summer Food Program is designed to provide the same nutritious meals to children as the School Lunch Program yet serves *less than 2 million children* a day.

What happens to the other 10 million low-income children during the summer? Food banks often tell us that their greatest need for food is not Thanksgiving or Christmas, but summer when the kids are out of school.

A principal reason that millions of low-income children do not have access to the Summer Food Program is that Congress, at the urging of the last administration, eliminated private nonprofit sponsors from the program in 1981.

Now only schools, public entities like city governments, and residential camps can sponsor programs. Some local governments have not been interested in sponsoring the program and many school systems close for the summer. As a result, millions of low-income children have access to nutritious meals for only 9 months of the school year. *Limited restoration of private nonprofit sponsorship* to the Summer Food Program will allow access to this program for low-income children. Currently, there is a five-State demonstration project in Arkansas, Nevada, Massachusetts, North Carolina and Texas, which allows private nonprofit sponsors to participate. Every State should be allowed to have such sponsors if this program is truly intended to reach the children who could benefit most from the nutritious meals it provides.

3. *Provide Startup Funds for the School Breakfast Program.*—New research shows that eating breakfast at school is associated with significant improvement in achievement test scores. Yet only one-third of the schools that have a School Lunch Program offer a School Breakfast Program. The provision of startup funds would enable schools to enlarge refrigeration capacity and make necessary administrative adjustments in order to initiate a Breakfast Program. Such funds are also needed for outreach so that parents and school officials can learn about the benefits of school breakfast and obtain information which could help them in making the decision to initiate a School Breakfast Program.

How would startup funding work? One approach could be to allow the Secretary of Agriculture to provide $5 million to State educational agencies for distribution to schools which:

- are in need of one-time funding for costs associated with initiating a School Breakfast Program;
- have a significant percentage of low-income children in their school; and
- agree to operate a School Breakfast Program for 3 years as a condition of receiving Federal startup funds.

The purpose of providing startup funds would be to encourage local school food authorities to initiate federally subsidized School Breakfast Programs in public and nonprofit nonpublic schools currently not participating in the program and where breakfast is not offered to students.

Funds could be used for:

Promotional Activities.—Developing materials which educate parents, teachers and teacher organizations about the strong connection between consumption of school breakfast by low-income children and educational achievement.

Community Outreach.—Getting information to low-income parents about the potential availability of the School Breakfast Program.

Program Development.—Producing a videotape on the impact of successful School Breakfast Programs in other school systems in your State.

Equipment Assistance.—Allowing schools which cannot start a program because of inadequate freezer storage space to purchase a milk cooler.

States which have legislation requiring the expansion of School Breakfast or provide financial incentives for expanding School Breakfast could be given preference by USDA in the grant awarding process.

4. *Increase the Authorization for the Nutrition Education and Training Program (NET).*—There is a need to raise the $5 million authorization level for NET which represents the sole Federal source of funding for nutrition education in schools and day care settings in the Federal budget. The child nutrition programs provide children access to food and NET provides our children with information on the importance of wise choices in selecting which foods to eat. The Surgeon General's 1988 Report on Nutrition and Health cites studies that link 5 of the 10 leading causes of illness and death in the United States to diet. We believe that now is the time to increase nutrition education funding and to make a strong commitment to the health and nutritional status of our Nation's children.

5. *Improve the Quality of Meals Served to Children by Adopting Nutrition Policy Positions Consistent With Safeguarding the Health and Nutritional Status of the Nation's Children.*—The National School Lunch Program has in recent years been attacked in reports which argue that meals offered by some schools are too high in salt, fat and sugar. These reports generally do not focus on the substantial nutritional benefits that the consumption of a school lunch offers to children in terms of energy and nutrients known to be missing in the diets of low-income children, but these reports do raise disturbing questions about the quality of meals served in some schools across the country. This subcommittee could assist schools and children by:

- requiring the Secretaries of Health and Human Services and Agriculture to jointly develop and approve Dietary Guidelines for Children;
- allow the Secretary to regulate the sale of food in schools that compete with school lunch from the beginning of the school day to the end of the last lunch period;
- establish a USDA School Food Service Institute to aid in the effort to bring school meals into compliance with the USDA/HHS Dietary Guidelines;
- increase funding for NET; and
- delete the *requirement* that whole milk be offered as part of the School Lunch Program.

6. *Noncost Provisions in WIC and the Child Care Food Program.—WIC—*.Even with increased funding for WIC, there will still be some barriers that stand in the

way of many needy women, infants and children who are eligible to participate in the program. At minimal or no cost, these barriers can be eliminated.

A. *Allow all women, infants and children receiving Medicaid, AFDC or food stamps to be considered income-eligible for WIC.*—Currently, when people receiving Medicaid, AFDC or food stamps apply for WIC, they must document their income again for WIC eligibility. Given that the income-eligibility requirements for these programs are more restrictive than for WIC, using Medicaid, AFDC or food stamp participation for presumptive income-eligibility would eliminate a burdensome and redundant step in the WIC application process.

B. *For income-eligibility purposes in WIC, allow a pregnant woman to be counted as a family of two, as she is in Medicaid.*—This would increase the number of pregnant women on Medicaid who are eligible for WIC, as well as increase the overall number of low-income pregnant women who could receive WIC services. It would also help to improve the coordination between the two programs.

C. *Stipulate that State agencies are responsible for assuring that WIC clinics are accessible to working participants through extended or shifted office hours to include evening and/or weekend hours.*—Many local WIC clinics are open during typical office hours (Monday through Friday, 9:00 a.m. to 5:00 p.m.). This creates a barrier to participation for working participants. A number of WIC clinics have avoided this barrier by extending or shifting their office hours so the clinic is open for a number of evening or weekend hours. This should be expanded to assure that more working participants have access to WIC clinics.

D. *Eliminate the 60-day limit for the age of medical data (e.g. blood work required for WIC eligibility).*—In order to qualify for WIC benefits, applicants are required to provide proof that they are at nutritional risk. To document this condition, height, weight and blood tests are done by a competent health professional. In September 1988, a regulation was issued which limits the age of medical data which are allowed to be used for WIC eligibility to 60 days. This has created a barrier for participants who are forced to return to a health care provider to have blood tests conducted a second time if the data from their blood work is more than 60 days old. The 60-day limit has been problematical because it is often logistically difficult, very inconvenient and time-consuming for participants to obtain another blood test. For children, it can be a traumatic and unnecessary experience. In addition, the cost of this second blood test often falls on the participant. Finally, there does not appear to be a strong basis for this restriction. Therefore we recommend that the age of medical data used to determine children's eligibility be 6 months.

E. *Stipulate that local agencies shall refer all women and children who apply for WIC, but cannot be immediately served, to other food, health and nutrition services (e.g., the Commodity Supplemental Food Program, food stamps, soup kitchens, TEFAP, Medicaid, etc.).*—According to a 1989 FRAC survey, carried out in conjunction with the publication of *Feeding the Other Half*, almost one-third of the 43 WIC Directors responding said that people placed on WIC waiting lists in their States are not referred to other services, or that they did not know whether local clinics referred these individuals to other services. This provision is needed to strengthen the referral aspect of the WIC Program, and to assure that women and children who must wait for WIC benefits are given a variety of other places to turn for assistance.

F. *Earmark $8 million for breastfeeding promotion within the WIC budget.*—The research and health communities agree that breastfeeding is the best way for infants to be fed. However, as the WIC Program now operates, there is a lack of resources to devote adequate time to promote breastfeeding among pregnant women and new mothers. In order to encourage more women to breastfeed and to provide participants with the opportunity to make an informed choice between bottle feeding and breastfeeding, a special set-aside is needed within the WIC budget.

Child Care Food Program.—Regrettably the FY 1990 budget resolution only provides $15 million in new entitlement authority for expansions and improvements in child nutrition programs. As a result, there is insufficient funding for two important changes in CCFP. One necessary change is to provide an additional meal or snack for children (many of whom spend up to 12 hours a day in day care) in family day care homes. A second very important change would give low-income children greater access to CCFP by changing the definition of eligibility for "for-profit sponsors"—who currently must have 25 percent of their children receiving title XX—to a new eligibility standard: requiring that 25 percent of their children be eligible for free and reduced-priced meals. These provisions should be addressed in next year's farm bill.

On noncost CCFP issues for this bill we support the recommendations of the CCFP Sponsors Forum that:

- sponsoring organizations be allowed the use of start-up funds whenever they are needed to expand into a new low-income, rural or underserved area;
- a reasonable error tolerance rate, comparable to the rate allowed in the School Lunch Program be established;
- elimination of the paperwork requirement that child care centers in CCFP must document that a child is in attendance for 8 hours or longer in order to receive a fourth meal or snack; and
- elimination of the paperwork requirement to collect Social Security numbers on income applications.

7. *Fully Fund the Community Food and Nutrition Program (CFNP).*—The Community Food and Nutrition Program is the only Federal program designed to provide assistance to community groups whose goal is to decrease childhood hunger by identifying and initiating child nutrition programs in unserved or underserved areas. The Community Food and Nutrition Program grantees have effectively carried out all of the activities mandated by the legislation. Some of their major accomplishments have been:

—providing services to approximately 500,000 low-income persons, 25 percent of whom were children and elderly individuals;
—donating over 300,000 pounds of food;
—mobilizing more than $6 million from other public and private sources (6:1 ratio of public/private sector dollars to CFNP dollars); and
—developing publications on food and nutrition in order to improve food program outreach and the delivery of food.

In Iowa, the Iowa Department of Human Services and the Northeast Iowa Community Action Corporation of Decorah, Iowa received grants of $50,000 each to help meet the nutritional needs of the rural poor. In Minnesota, the Urban Coalition and its subgrantee, the Minnesota Food Education and Resource Center, received a $50,000 grant to expand the School Breakfast Program. Recently the Minnesota group's effort culminated in a new State law requiring the expansion of the School Breakfast Program in Minnesota.

Despite the demonstrated success of the Community Food and Nutrition Program, and its modest authorization of $3 million, in FY 1990 CFNP received only $2.4 million. We urge its full appropriation.

Thank you again for the opportunity to discuss with you the reauthorization of the child nutrition programs. I hope our suggestions will be useful to you in your deliberations.

[Letter from Mickey Leland, chairman, House Select Committee on Hunger follows:]

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, DC, June 19, 1989.

The Honorable AUGUSTUS HAWKINS,
Chairman, Subcommittee on Elementary, Secondary and Vocational Education,
Rayburn House Office Building.

DEAR MR. CHAIRMAN: Within the next few weeks, the subcommittee will convene to consider H.R. 24, legislation reauthorizing the national network of child nutrition programs. We are writing to encourage your support of provisions which would permit private nonprofit organizations to sponsor the Summer Food Service Program.

The program is designed to provide nutritious meals and snacks to children residing in "areas in which poor economic conditions exist" during the summer months when National School Lunch Program services are not available. As is the case with the School Lunch Program, meal quality standards ensure well-balanced nutritious meals that supply the types and amounts of foods required to meet the nutrient and energy needs of participating children.

Studies sponsored by the U.S. Department of Agriculture report that low-income participants in the School Lunch Program are dependent on the meals provided for between 34 and 49 percent of their daily nutrient intake. With no access to the Summer Food Service Program, many of these children fail to receive these vital food benefits.

The Omnibus Budget Reconciliation Act of 1981 contained a prohibition on sponsorship of summer feeding programs by all organizations other than public and private nonprofit school food authorities, local municipal or county governments and public and private nonprofit residential summer camps. Consequently, community service organizations, church groups and other charitable institutions were forced to conclude provision of meal services to needy children.

Many nonprofit organizations, such as community action agencies, have experience in operating meal service programs and offer the best opportunity to channel summer meals to poor children who need them. We encourage your support of language in the reauthorization bill which would restore the ability of private nonprofit program sponsors to serve this vulnerable population group.

Sincerely,

MICKEY LELAND,
Chairman, House Select Committee on Hunger.
MIKE ESPY,
Chairman, Domestic Task Force, House Select Committee on Hunger.
EDOLPHUS TOWNS, *M.C.*
CARDISS COLLINS, *M.C.*
DONALD M. PAYNE, *M.C.*
KWEISI MFUME, *M.C.*
WALTER FAUNTROY, *M.C.*

TESTIMONY OF ROBERT GREENSTEIN
DIRECTOR, CENTER ON BUDGET AND POLICY PRIORITIES
before the
SUBCOMMITTEE ON NUTRITION AND INVESTIGATIONS
of the
SENATE COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY

JUNE 15, 1989

I appreciate the invitation to appear before the Subcommittee today. I am Robert Greenstein, director of the Center on Budget and Policy Priorities. The Center is a non-profit research and analysis organization located in Washington, D.C. which studies public policies affecting low income Americans.

My testimony today will cover the summer food program for children and the Special Supplemental Food Program for Women, Infants, and Children (WIC). The principal focus will be on WIC, but I would like first to address some issues regarding the summer program.

The Summer Food Service Program for Children

The summer food program is designed to continue the school lunch program for poor children during summer months when school is not in session. Many poor children are not reached by the program, however, especially in rural areas where few summer feeding programs are found. According to a recent USDA study, only 13 percent of the low income children receiving free or reduced price school lunches during the regular school year are now reached by the summer food program.*

One reason for such low participation is that only schools, public agencies, or residential camps are permitted to operate the program. All charitable and voluntary organizations -- such as YMCA's, boys clubs and girls clubs, settlement houses, churches and the like -- are excluded. Thus, for example, the types of organizations that often operate emergency food pantries or soup kitchens (and that are frequently lauded for their voluntarism) are prohibited from operating summer food programs. They are precluded from operating a summer food program even if no school or public entity in the area is willing to run the program, and poor children are left unserved as a result.

When the program was initially established, such organizations were allowed to operate summer food service programs. In some large cities, non-profit organizations developed that served tens of thousands (in some cases, hundreds of thousands) of children and that contracted with private food service companies for the delivery of the meals. Some of these organizations were *not* ongoing community organizations, but rather were operations whose sole function was to operate summer food programs. In some of these large operations, abuses were found.

---

*. Food and Nutrition Service, U.S Department of Agriculture, *Evaluation of the Summer Food Service Program: Final Report*, July 1988.

The need to address this problem came at the same time as the large budget reductions of 1981. The result was that *all* agencies other than public agencies, schools, and residential camps were removed from the program. Established community organizations that served manageable numbers of poor children, cooked their own meals, had excellent track records, and no history of abuse were terminated, along with groups that had abused the program.

The hope at the time was that this action would *not* disadvantage low income children, and that schools and public agencies would step forward to fill the gaps in areas where non-profit, charitable, or religious organizations had been carrying the load. In some areas, this did occur. But in many other areas, it did not. The greatest gaps were created in rural areas.

Indeed, the recent USDA study found the following:

- In 39 states, the number of low income children served through the summer food program is less than 15 percent of the number of low income children who receive free and reduced-price school meals during the regular school year.
- For the nation as a whole, the number of low income children served in the summer food program equals just 13 percent of the number of children receiving free or reduced price school meals.
- Participation is especially low in rural areas. The study found that while 31 percent of the children with incomes below 175 percent of the poverty line lived in rural areas, only 18.2 to 23.7 percent of the children in the summer food program were residents of rural areas. Rural areas were found to be heavily underrepresented in the program.
- This is further shown by an examination of the participation levels in rural states. In every one of the 15 most rural states, the number of children served by the summer program was less than 15 percent of the number of children receiving free or reduced-price school lunches during the school year.* (This was true in seven of the 15 most urban states, as well.)

  In 12 of the 15 most rural states, the number of children reached in the summer food program equalled less than 10 percent of the number of children receiving free or reduced price school meals.
- In the urban states as well, the gaps in the summer food program are large and participation is quite low. In the 15 most urban states, the number of children served in the summer food program averaged just 15.8 percent of the number of children receiving free or reduced price school meals. In the 15 most rural states, the number of children

---

*The 15 most rural states are those 15 states in which the largest proportion of the state's population lives in non-metropolitan areas. The 15 most urban states are those with the largest proportion of their population living in metropolitan areas. These data are found in the *Statistical Abstract of the U.S., 1988*.

receiving summer meals averaged just 5.7 percent of the number of children receiving free or reduced-price school meals.*

Barriers to Participation in Rural Areas

In a major study issued last year on rural health and nutritional issues (*Patterns of Risk: The Nutritional Status of the Rural Poor*), Public Voice for Food and Health Policy examined barriers to participation in the summer food program in rural areas. Part of the study consisted of surveying state child nutrition directors throughout the country.

The survey results showed that the restrictions barring all private charitable organizations from operating summer food programs resulted in "a built-in bias against rural areas. Prior to 1981, rural programs in particular depended heavily on community action agencies and non-profit organizations such as churches, boys clubs and girls clubs to sponsor summer food programs."

The Public Voice study found that rural schools are generally reluctant to open during summer months in order to run the program. "The costs of opening [rural school] facilities and preparing food on-site with only limited reimbursement are disproportionately prohibitive in rural areas," the study reported. "Overhead and indirect costs of the program including lighting and kitchen facilities are spread over many fewer participants in rural areas. Without non-profit sponsors, the program is not cost effective in rural areas and the children suffer as a result."

The Public Voice study observed: "the prohibition of private non-profit organizations from the summer feeding program contrasts sharply with their involvement in other critical government programs. For example, private non-profit organizations deliver commodities through the Temporary Emergency Food Assistance Program and are praised...for these efforts."

Addressing This Problem While Protecting Against Fraud and Abuse

Helping to fill these gaps would be desirable. But care also needs to be taken to guard against a return of the problems that occurred in the 1970s. How can this be done?

I believe the key is to distinguish those types of non-profit and charitable organizations that were associated with abuse in the 1970s from those that were clean. Those categories of organizations that included problem sponsors should remain barred from the program.

A review of audits from the 1970s makes clear there were distinguishing characteristics of the non-profit organizations that experienced serious problems. The serious abuse cases generally included private non-profits that contracted with commercial vendors for the preparation and delivery of meals. Usually, these were non-profit organizations serving meals to large numbers of children at large numbers of feeding sites. On some occasions, these were organizations that performed no community function other than serving summer meals.

**These figures are simple averages of the state participation percentages in the 15 most urban states and 15 most rural states.

The USDA Inspector General repeatedly noted in the late 1970s that such organizations were the source of the program's serious problems. In a semiannual report to Congress in November 1979, the Inspector General stated:

> "We remain convinced that the greatest obstacle to the successful operation of the Summer Feeding Program is the continued participation of large private sponsor/private vendor combinations. They are the source of the worst abuses, and we continue to support legislation to remove them."

In his next semiannual report to Congress, in May 1980, the Inspector General reiterated this point.

> "It is our view that schools and sponsors that prepare meals on site have had the best programs, and large private sponsors using meals prepared by a commercial vendor have had the most problems."

A Proposed Remedy

These findings suggest a proposed remedy. To help fill the gaps in the program and reach more poor children, certain non-profit charitable organizations could be permitted to operate the program, while all others would remain barred. The organizations allowed into the program would be those that meet *all* of the following criteria:

- They either prepare their own meals or obtain meals from a school or other public facility. No non-profits obtaining meals from private vendors would be allowed in the program.
- They are small-scale operations only (e.g., they could be restricted to sponsoring organizations serving no more than 2,500 children, with no more than several hundred children at any one site, and no more than a maximum of five sites for any urban sponsor).
- They serve only areas in which neither a school nor a public agency will operate a program.
- They are organizations that provide ongoing, year-round services for children or families.
- They demonstrate adequate management and fiscal capacity and exercise full control and authority over the operation of the program at all sites under their sponsorship.
- They meet all applicable state and local health, safety, and sanitation standards.

These restrictions and protections would safeguard program integrity while providing increased service to poor children in areas that otherwise would lack a program. Because of the restrictions, the cost would be quite modest -- CBO has estimated the cost at $10 million. The bulk of the savings achieved in the summer food program under the 1981 budget reductions would remain in place.

I would note that if such a provision is enacted, it will be important to ensure that non-profit organizations are informed of the change of law. This is especially true in rural areas, where there are not as extensive networks of non-profit and charitable organizations as in urban centers, and where news of the new provision may not penetrate. This suggests that implementation of such a provision should be accompanied by an informational effort in rural areas.

The WIC Program

As members of the Subcommittee know, an extensive body of medical research has demonstrated that the Special Supplemental Food Program for Women, Infants, and Children (WIC) is one of the nation's most effective social programs. WIC has been found to reduce the incidence of late fetal deaths, to reduce the incidence of low birthweight and premature births, to reduce anemia, to increase the head circumference of infants born to mothers who received WIC benefits during pregnancy, to increase use of prenatal care, and to improve diets. The research evidence also suggests that WIC may be linked to improvement of cognitive skills in children.

WIC also helps avert medical costs. A study conducted at the Harvard School of Public Health found that each dollar spent in the prenatal component of WIC averted three dollars in hospital costs for newborns. (These included both costs borne by government and costs borne by private insurance or absorbed by hospitals.) A subsequent study by the Missouri Department of Public Health found that each dollar spent in the prenatal component of WIC saved 49 cents in Medicaid costs just in the first 45 days after the child's birth. (More information on the medical research on WIC is found in an attachment at the end of this testimony.)

Despite these striking achievements, however, participation in the WIC program remains limited. Only about half of the low income pregnant women, infants, and children who are at nutritional risk and are eligible for WIC are now reached by the program. The other half are left out.

Current state initiatives to reduce infant formula costs and stretch WIC dollars to serve more participants are extremely important and should be strongly encouraged. But these efforts can add only about 300,000 - 400,000 more people to the program (beyond those who have already been added with savings generated by cost containment systems) -- or about one of every ten who are currently eligible but unserved.

The Recommendations of Business Leaders and Blue-Ribbon Panels

In the last year and a half, four distinguished panels of business and education leaders, former presidents of the United States, and health experts have made recommendations concerning the WIC program. In every case, the recommendations have been for major expansion.

- In its noted report *Children in Need: Investment Strategies for the Educationally Disadvantaged*, the Committee for Economic Development, a group of more than 200 corporate executives and university presidents -- called for increased investment in a limited number of cost-effective programs. One of the key programs the CED recommended enlarging was WIC. The CED noted that WIC produces a "reduction in infant mortality and births of low birthweight infants," and that low birth weight leads to health problems and learning disabilities. The report observed that WIC reaches only a fraction of those eligible for it.

- In August 1988, the National Commission to Prevent Infant Mortality, a blue-ribbon panel chartered by Congress and chaired by former Senator Lawton Chiles, issued a report that calls for a number of changes in government policy to reduce the high U.S. infant mortality rate. (The U.S. now has a higher infant mortality rate than any other western industrialized country.) One of the Commission's principal recommendations is for increased funding for WIC. The Commission stated: "WIC is widely regarded as one of the nation's most successful and cost-effective nutritional intervention programs. Any effort to reduce infant mortality and low birthweight will need to include a strong nutritional component, such as WIC." The report also declared that "WIC has been enormously successful and has been shown to increase the likelihood of a healthy birth" and that "there is strong bipartisan support for WIC but the program has never been funded adequately."*
- In November 1988, former Presidents Gerald R. Ford and Jimmy Carter presented their American Agenda report to the President-elect and the nation. In preparing this report, Presidents Ford and Carter assembled panels of leading experts in a number of fields. While calling for rather austere deficit reduction measures, the two Presidents also called for increased investment in a select group of highly effective programs for poor children. They wrote:

  > "There is no easy answer to the problem of ingrained poverty. But early intervention is the best opportunity to break the cycle of poverty. There is solid evidence that Federal programs such as Head Start, prenatal care, immunization, the Women's Infant and Children feeding program and compensatory education do work, and offer one of the best investments the country can make in its own people."

  The two Presidents stated that despite the budget deficit, these programs must be expanded to serve all children eligible for them:

  > "Spending public funds for these young Americans is not wasteful; it is wasteful *not* to invest in the medical attention, the education, and the job training that will

---

*In debate on the Senate floor in July 1988, Commission chairman Lawton Chiles observed: "Every day that we allow pregnant women or young children to go without adequate nutrition, this country pays a tragically high price, not only in added health costs, but lost lives. It has been demonstrated to me over and over again that the WIC program is one of the most effective of all Federal programs in reducing infant low birth weight, premature births and anemia. Unfortunately, Mr. President, this program is not reaching everyone that is eligible in the population. . .we ought to be talking about funding 100 percent of this program. . ." (*Congressional Record*, July 29, 1988, S10376-7.)

> provide poor children a share in the American opportunity.
>
> "We understand the budget constraints on any expansion of Federal spending programs; but we believe that it would be imprudent to delay any longer on taking Federal action to begin the long process of assisting these children of poverty.
>
> "We recommend that you set a goal of full Federal funding for Head Start, WIC, Compensatory education, prenatal care, immunization and preventive healthy care programs for all eligible, disadvantaged children within eight years, and move toward that goal by recommending in your Fiscal 1990 budget annual increases of $2 billion until the goal is reached."

Similarly, in the section of the *American Agenda* report on domestic policy, Carla Hills and Edmund Muskie (the authors of this section of the report) called for expanding "programs of proven effectiveness" including WIC and several other preventive programs for low income children. Hills and Muskie declared that "Expanding them [these programs] is our top domestic priority."

- In late November 1988, the Council on Competitiveness, a well-known a group of corporate executives and education and labor leaders, presented its recommendations in *Reclaiming the American Dream: Fiscal Policies for a Competitive Nation.* Like the *American Agenda* report, this document recommended an array of stiff deficit reduction measures, but also called for expansion for a small number of programs including WIC, Head Start, and compensatory education. The Council wrote:

> "Early childhood intervention is essential to help promote child development. One effective federal intervention is the Women, Infants, and Children program. Evaluation of the WIC program reveals that it reduces fetal deaths by one-third; reduces premature births among high-risk mothers by 15 to 25 percent; and shows increased brain growth and evidence of cognitive development among pre-schoolers who are WIC participants. WIC currently serves...less than half the eligible population....The program should be expanded to serve more eligible children."

In short, there is a growing consensus that WIC is one of our most valuable and successful programs and should ultimately be enlarged so that it can reach all eligible women, infants, and children. While the annual funding levels for this program are under the purview of the Appropriations Committee rather than the Agriculture Committee, we would urge this Committee to do what it can to help the program achieve this goal.

I would also like to address several WIC legislative issues that we believe need to be addressed in the upcoming reauthorization of the program.

1. Improving the Coordination of WIC with Other Programs

First, we would strongly recommend that women, infants, and children receiving Medicaid, AFDC, or food stamps should be considered as meeting the WIC program's income limits. This will reduce paperwork and red tape and improve WIC services.

As you know, WIC has two eligibility criteria -- an income test and a nutritional risk test. To be eligible, an applicant must satisfy both.

Yet those on Medicaid, AFDC, or food stamps have already been through an extensive, time-consuming, and often costly income examination and verification process. Since the income limits in these programs are more restrictive than those in WIC, those receiving benefits in these programs will generally meet the WIC income limits, anyway.

It does not make sound administrative sense to require pregnant women or mothers of young children to go through this income eligibility process all over again at WIC offices. Nor does it make sense for local WIC clinics to use scarce administrative dollars repeating this process. Writing a provision into the law stating that enrollment in Medicaid, food stamps, or AFDC satisfies the WIC income test would make an important administrative improvement in the program.

I would note that this would *not* make Medicaid, food stamp, and AFDC recipients automatically eligible for WIC. They would still have to pass the WIC nutritional risk test. In addition, their ability to be enrolled in WIC would depend on the availability of WIC funds.

Other improvements need to be made to improve coordination. We are especially concerned that coordination be improved between WIC and Medicaid, both of which are important health programs. Census data show that only one of every three children below the age of four who is enrolled in Medicaid also receives WIC. Similarly, many of those who participate in WIC are not enrolled in Medicaid, although they may be eligible. We recommend that language be included in the bill strengthening the referral system between WIC and Medicaid.

2. WIC Administrative Funding

There is a broad consensus that the statutory provisions dealing with WIC administrative funding need to be reformed. The current statutory provisions are cumbersome and complex. In addition, the provisions enacted in 1987 to encourage states to institute infant formula cost containment provisions are (and were always intended to be) short-term provisions only. As shown by the recent USDA study on WIC administrative cost issues, if modifications are not made in the law this year, state administrative grants will decline sharply in coming years (when measured on a per participant basis). This would jeopardize effective program operations.

The basic approach that has been suggested by the National Association of WIC Directors -- and that also is outlined as a potential remedy in the USDA report -- represents a sound course. The recommendation is to take the average WIC administrative grant per person in a given year (preferably FY 1987), adjust this amount by inflation each year, and then multiply it by the total number of participants that a given fiscal year's funding level will support. The result would represent the total amount of WIC funds for that fiscal year that USDA would provide to states for administration and nutrition services. (Note: we suggest using FY 1987 as the base year because it was the last year before cost containment became widespread.)

Adopting a recommendation along these lines would not affect overall WIC program costs. It would simply alter the method for determining how much of a fiscal year's WIC funds is available for food and how much is available for administration and nutrition services.

3. Solving "cash flow" problems

The widespread institution of infant formula cost containment systems has resulted in some unintended cash flow problems for states. These problems have arisen because the rebate check for the WIC infant formula purchased in a given month is typically received by a state several months after the month in question. (After the end of a month, a state collects the WIC infant formula vouchers that were transacted in the month and bills the infant formula company for rebates based on these transacted vouchers. The company then sends the state a rebate check. The rebate check for a given month can be received 30 to 90 days after the end of the month.)

This can result in cash flow problems for states at the end of each fiscal quarter. It can also result in problems during the early months of a new fiscal year. If we wish states to implement effective cost containment measures and to achieve substantial cost savings so that more eligible participants can be served, we must do all that is possible to resolve these cash flow problems. Our staff is working on a set of detailed recommendations in this area.

4. Breastfeeding

The WIC program needs to place greater emphasis on breastfeeding education. We concur with the National Association of WIC Directors and the National Committee on Improving Breastfeeding Promotion Strategies in the WIC Program that more attention should be placed on encouraging women participating in WIC to breastfeed. Accordingly, we urge that a modest amount of WIC funds should be earmarked for this purpose. We understand that the National Committee on Improving Breastfeeding Promotion is recommending that $8 million be earmarked for this effort.

Finally, one of the major developments in WIC over the past two years has been the spread of infant formula cost containment systems. Forty-two states now have such systems in place and several additional states are planning to implement them in the near future. All but a few states should have them by the end of the fiscal year.

The savings being achieved through infant formula cost containment contracts vary considerably, from a savings of 47 cents per can in one state to $1.45 per can in California and about $1.35 per can in Indiana and Tennessee. We would note that in testimony before the House Education and Labor Committee in February, Dr. Donald Schiff, president of the American Academy of Pediatrics, stated that the Academy favored use by each state of the cost containment system that would yield the largest savings for that state while maintaining the quality of the formula. That represents our view also.

That concludes our testimony. I would again like to thank the Chairman and the members of the Subcommittee for the opportunity to testify today and for their bipartisan leadership that you have demonstrated on these issues over the years.

States With Especially Low Participation in the Summer Food Program

In the following states, the number of low income children served through the summer food program is less than 15 percent of the number of low income children receiving free or reduced-priced school lunches during the school year.

Alabama	13.2%	Nebraska	4.2%
Alaska	0.3	Nevada	3.3
Arizona	6.5	New Hampshire	5.9
Arkansas	1.0	New Mexico	12.3
California	14.5	North Carolina	8.9
Colorado	8.4	North Dakota	6.7
Georgia	12.2	Ohio	7.0
Hawaii	9.6	Oklahoma	2.9
Idaho	1.2	Oregon	6.4
Illinois	10.3	South Dakota	12.0
Iowa	5.7	Tennessee	7.8
Kansas	4.7	Texas	3.8
Kentucky	6.5	Utah	1.6
Louisiana	9.4	Vermont	0.9
Maine	2.1	Virginia	8.3
Massachusetts	10.0	Washington	4.4
Minnesota	10.7	West Virginia	8.3
Mississippi	14.8	Wisconsin	5.9
Missouri	6.1	Wyoming	0.3
Montana	9.6		

THE RESEARCH FINDINGS ON WIC

A series of medical evaluations have found striking results that WIC improves the health of participating women, infants, and children. Most significant is an extensive, multi-year medical evaluation supported by the U.S. Department of Agriculture and issued in 1986. Directed by Dr. David Rush, one of the nation's leading researchers in the field, the evaluation found that:

- WIC contributed to a reduction of 20 to 33.33 percent in the late fetal death rate.
- WIC significantly increased the head size of infants whose mothers received WIC foods during pregnancy. Head size normally reflects brain growth.
- Women who participated in WIC had longer pregnancies leading to fewer premature births. There was a 23 percent decrease in prematurity among white women with less than a high school education and a 15 percent decrease among black women with less than a high school education. Premature births are one of the leading causes of death among infants.
- WIC participation resulted in a significant increase in the number of women seeking prenatal care early in pregnancy and a significant drop in the proportion of women with too few prenatal visits to a health facility. Early and adequate prenatal care is one of the major factors affecting the health of newborn infants.
- WIC participation also appears to lead to better cognitive performance. Four and five year olds whose mothers participated in WIC during pregnancy had better vocabulary test scores. Children who participated in WIC after their first birthdays had better digit memory test scores.
- Women enrolled in WIC consumed more of such key nutrients as iron, protein, calcium, and vitamin C.
- WIC also improved the diets of infants by increasing the average intake of iron and vitamin C and significantly diminishing the frequency of low consumption of iron and vitamins A and C. WIC improved the diets of older preschool children by increasing average consumption of iron, vitamin C, thiamine, and niacin and by significantly decreasing the frequency of low intake of vitamins A and B and riboflavin.
- The greatest dietary benefits were among those people at highest risk: minority women, women with less education and children who are very poor, short, black, or in female-headed families.
- Children participating in WIC were better immunized and more likely to have a regular source of medical care.

Other studies have also demonstrated that WIC makes a significant contribution to the health of pregnant women and young children.

- The General Accounting Office (GAO) reviewed all medical research on WIC published up to 1985 and found that the incidence of low birthweight infants born to low income women who have been participating in WIC appears to be reduced by 16 to 20 percent.
- WIC has a major impact on reducing anemia among children. The *Journal of the American Medical Association* (September 25, 1987) reported findings from the Center for Disease Control's Pediatric Nutrition Surveillance data that showed a two-thirds reduction in childhood anemia over a ten-year period. The study indicated that WIC contributed markedly to the decline. The study found that low income children not enrolled in WIC have a significantly higher prevalence of anemia than those who are enrolled.
- According to a University of California School of Public Health study, women who participated in WIC for an extended time during the postpartum period had higher mean hemoglobin levels and a lower risk of maternal obesity at the onset of the next pregnancy. Their infants had higher mean birthweights and were at a lower risk of having a low birthweight than were the infants of women who did not participate in the WIC program for an extended time during the postpartum period.
- A Harvard School of Public Health study found that WIC reduced the incidence of low birthweight and that each $1 spent on the prenatal component of WIC averted $3 in hospitalization costs in the geographical areas under study.
- A Missouri Department of Health study found that WIC participation was associated with reductions in low birthweight rates and that for every $1 spent on the prenatal component of WIC, about 49 cents in Medicaid costs were saved during the first 45 days after birth.

Statement of Fergus M. Clydesdale, Profesor and Head, Department of Food Science, University of Massachusetts, Amherst, MA 01003

I am Fergus M. Clydesdale, Professor and Head of the Department of Food Science at the University of Massachusetts at Amherst. I have been actively involved in research on food quality and nutritional bioavailability for over 25 years and have been involved specifically with research on the physicochemical factors in food which affect iron bioavailability for the past 15 years.

While I am in full support of the WIC Program in general, I would like to address three of the questions asked by Senator Harkin related to the WIC Commodity package:

1. Is the data employed for determining the WIC commodity package the most current and relevant by today's standards?

The following assessment of the nutrient intake of the WIC population is based on a review of the two most recent data sources available, the National WIC Evaluation, 1986 and a comprehensive review of that study, The National WIC Evaluation (AJCN 1988, 48).

In specifically assessing the nutritional status of the WIC population, the National WIC Evaluation (AJCN:48, 1988) clearly indicates the positive nutrient impact of the WIC food package. In particular, cereals make a major nutrient contribution to the diets of women and children. According to this evaluation, the women enrolled in the WIC program showed significant increases in their intakes of 14 nutrients, including four of the five nutrients specified as target nutrients: protein, iron, calcium and vitamin C. Specifically, the "Longitudinal Study of Pregnant Women" (AJCN 1988, 48:439) reports that "the increase in mean iron intake was entirely accounted for by reported differences in intake from WIC foods." Most of the difference in iron from WIC foods was supplied by WIC cereals. In addition, cereal was a major contributor of thiamin, niacin, vitamin B_6, vitamin B_{12} and vitamin C. In the "Study of Infants and Children," (AJCN 1988, 48:512) the greatest contribution to children's intakes of protein and most micronutrients from WIC foods was from cereals.

In addition to these evaluations of the WIC population, the recent Nationwide Food Consumption Survey of Women 19-50 Years And Children 1-5 Years, (NFCS, CSFII, Report No. 86-3, 1986) provides an indication of the nutrient intake of the WIC population. This survey of women and children includes individuals of all income levels as well as food-stamp and nonfood-stamp participants. Although WIC participation was not identified in this survey, approximately 60% of households receiving food stamps include individuals on the WIC program and are therefore representative of this sample.

In reviewing these survey data, the results were compared to the NHANES II data (1976-80) which were used to formulate the WIC package. The trends were similar. Variability could be attributed to normal differences expected from two different surveys. Also, there could be some differences reflected from actual changes in eating patterns from 1976-80 to 1986. For this reason, the most recent NFCS data were chosen to evaluate the nutrient intake of the WIC population in this testimony.

An evaluation of those nutrients identified in the WIC package, (protein, vitamin A, vitamin C, calcium and iron) is illustrated in Chart 1. It reveals that mean intakes are below the RDA for calcium and iron for women (19-34 years) and below the RDA for iron for children (1-5 years). However, when identifying the percent of the population consuming less than 70% of the RDA, there also is a significant number of women who are consuming less than adequate amounts of vitamin A and C as well.

When comparing the low-income group (130% below poverty) to the total population surveyed, there are some differences but the trends are the same. Clearly, protein intakes are currently adequate and iron and calcium intakes indicate a potential concern. This indicates a need to continue providing a food package that provides excellent sources of iron, calcium, vitamin A and C.

As well as evaluating key nutrients, any assessment of the WIC program should also take into consideration current dietary guidance for the American population. Specifically, two documents, The Surgeon General's Report on Nutrition and Health and The National Research Council Report, Diet and Health: Implications for Reducing Chronic Disease, were issued addressing the importance of the link between dietary practices and chronic disease.

The reports recognize that overconsumption and imbalances of certain dietary components increase the risk of chronic diseases. Of prime importance is the need to decrease fat, especially saturated fat and cholesterol, and to increase foods high in complex carbohydrates and fiber. More specifically, recommendations from the National Research Council report and other health organizations (National Cholesterol Education Program; The American Heart Association) recommend reducing total fat to less than 30% of calories.

Although not all children are consuming 100% of their RDA for calories, the percent of calories from fat is at or above the current health recommendations of consuming 30-35% of calories from fat.

	Children 1-4 years[1]	Children 1-5 years[2]
Calories	1172	1426
Fat, grams	43.5	59.5
% Calories from fat	33%	38%

1.The National WIC Evaluation, 1986.
2.NFCS, CSFII, Report N. 86-3

Foods provided in the WIC package should provide not only the key nutrients of concern, but be compatible with current dietary recommendations promoting a healthful diet. Therefore, the addition of foods high in fat, such as some meats, should be approached with caution. In particular, they should not replace foods high in complex carbohydrates and low in fat.

2. Given the fact that iron absorption rates for meats are much higher than that of cereals, could the addition of meats and/or vegetables to the WIC commodity package provide bioavailable iron or other important nutrients to those who are nutritionally at risk in a more cost-effective manner?

One of the primary health problems of the WIC population is iron deficiency anemia.

The key nutritional reason for including ready-to-eat cereals in the WIC food package is to provide a relatively bioavailable source of iron that is convenient, easy-to-use and store and relatively inexpensive.

In order to ensure that these criteria are met, several important factors are cosidered when selecting an iron fortification compound for cereals. These include:

1) The relative bioavailability (the availability of a nutrient for absorption by the body) of the compound
2) Reactivity of the compound which causes discoloration, undesired changes in flavor or odor and renders the iron compound unavailable
3) Stability of the compound under storage and food preparation
4) Compatibility with other nutrients

A large amount of research has been done to evaluate the best form of iron to add to cereals and other iron-enriched foods. Several GRAS (Generally Recognized As Safe) iron compounds have been tested for fortifying cereals. These include: ferrus sulfate, ferric orthophosphate, ferric sodium pyrophosphate, ferric ammonium citrate, ferrous fumarate and elemental iron. Some of these iron salts such as ferrous sulfate caused rancidity, discoloration and off odors because they are unstable compounds that allow the iron to react with the small amount of fat naturally occuring in the grain. Some of the other iron salts proved to be less bioavailable than elemental iron when tested in both rat and human studies, while still having the potential to react with food over long storage periods and become less available.

The type of iron added to the majority of cereals is elemental iron which is made by a process called hydrogen-reduction. The particle size can vary, but generally the smaller the particle size, the greater the bioavailability. The most important advantage of elemental iron over iron salts for cereal fortification is its stability after incorporation into a food. This stability helps prevent off-flavors, odors, discoloration and rancidity development in the cereal while maintaining a known and constant bioavailability.

Studies which have been conducted in my laboratory indicate that a considerable portion of elemental iron is converted to soluble ferrous iron, a very bioavailable form, under the acidic conditions of the stomach.

Further, we have shown that more bioavailable and less stable forms of iron, such as ferrous sulfate, are converted to insoluble hydroxides, become refractory, irreversibly insoluble and thus unavailable upon storage. It is a maxim that in order to be absorbed, minerals must become soluble in the intestinal tract. We also have shown in our laboratories that the presence of milk increases the solubility of elemental iron in cereals (Cereal Chem. 61:330, 1984) thus increasing the potential for absorption. This fact, along with the known enhancement of iron absorption by vitamin C, makes present-day, ready-to-eat cereals excellent sources of iron.

A recent landmark study (AJCN 49:225,1989) by the International Nutritional Anemia Consultative Group Task Force on iron bioavailability has shown that electrolytically reduced elemental iron in a farina-based meal was 75% as available as ferrous sulfate, considered to be the most available form of nonheme fortification iron. Ferric orthophosphate, on the other hand, was only 25% as available. This was considered to be the landmark study because unlike other studies, which have given inconsistent results due to subject and day-to-day variability, it compared different forms of fortification iron with ferrous sulfate by adding both isotopes to the same meal.

Compared to most other nutrients, the absorption of iron is a relatively complex process because of several factors that play a role in the body. The key determinant of how much iron a person absorbs is the iron status of the individual. The body carefully regulates the amount of iron absorbed at the side of intestinal absorption so that an individual with lower iron stores will absorb a greater proportion of dietary iron than a person with adequate iron stores. Other important factors include the amount and chemical nature of iron in the food, and a variety of dietary factors that increase or decrease the availability of iron for absorption. For example, the presence of ascorbic acid (vitamin C) or meat in a meal containing iron enhances the uptake of iron while certain compounds in tea and coffee have been shown to inhibit absorption.

Most recent research shows that the absorption of non-heme iron in humans can range from 2% to 20% of the total amount of non-heme iron present in the food (AJCN, 49:225, 1989; JADA, 88:746, 1988). The absorption of heme iron can range from 15% to 35%. These absorption rates are controlled primarily by the iron status of the individual. Therefore, the poorer the iron status, the greater the absorption. It is reasonable to expect the iron absortion of many of the WIC participants to be at the higher end of the range for both heme and non-heme iron since the iron stores are probably low. Even though the actual absorption of non-heme iron is lower than heme iron, the amount of absorbable iron provided by cereals is higher. Eligible WIC cereals provide between 8.1 and 18 mg iron per ounce (45% to 100% U.S.RDA) while hamburger provides 1.96 mg per 4 oz. raw

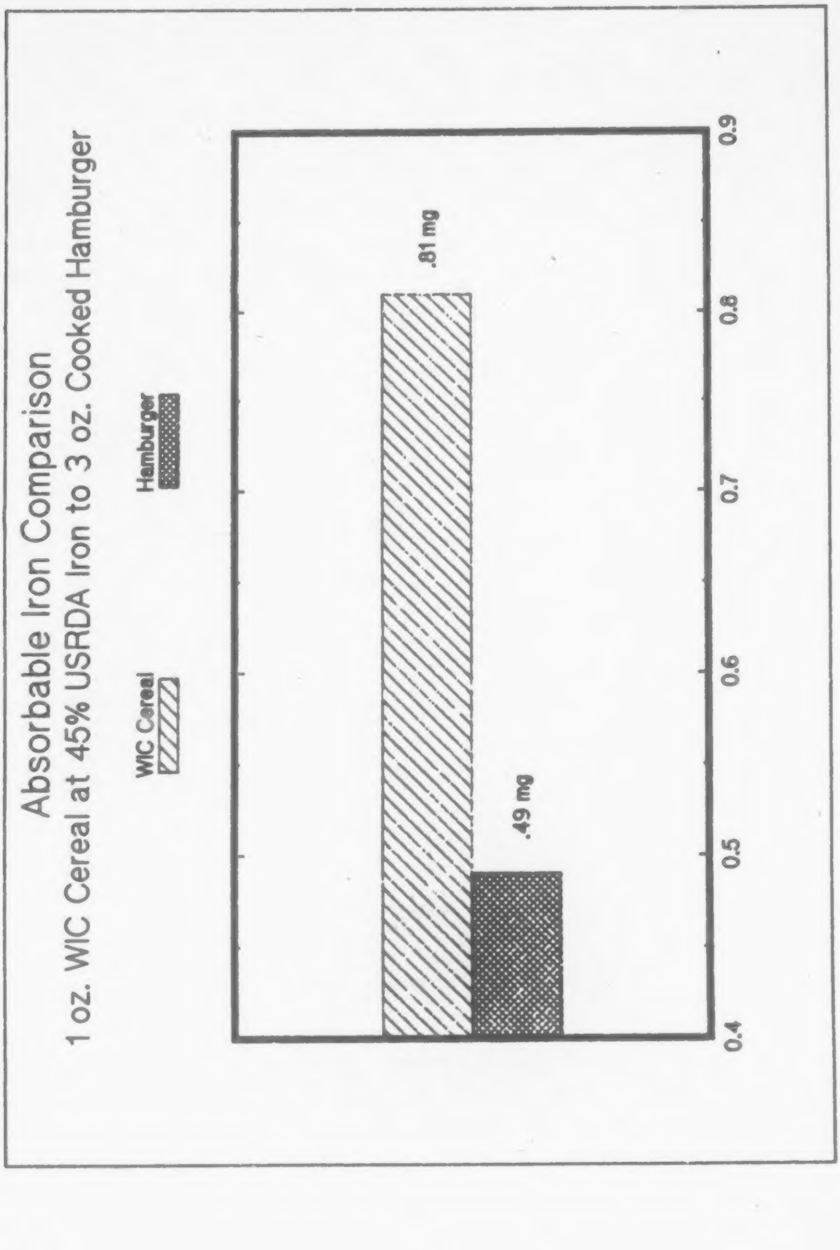
CHART 1

NUTRIENT INTAKE AND DISTRIBUTION OF WIC NUTRIENTS

	Mean Intake % RDA	% Population Consuming < 70% RDA	% Low-income Population (Under 131% Poverty) < 70% RDA
	Children 1-5 Years		
Calories	98	9.6	13.8
Protein	211	0	0
Vitamin A	203	3.6	6.0
Vitamin C	181	9.7	18.2
Calcium	103	17.2	17.8
Iron	82	46.7	47.5
	Women 19-34 Years		
All Women			
Calories	75	47.0	55.1
Protein	135	7.1	13.2
Vitamin A	122	39.0	52.1
Vitamin C	128	28.2	37.1
Calcium	79	46.0	60.2
Iron	57	76.4	84.5

U.S. Department of Agriculture, Human Nutrition Information Service, Nationwide Food Consumption Survey Continuing Survey of Food Intakes by Individuals: Women 19-50 Years and Their Children 1-5 Years, 4 Days, Report No. 86-3, 1986.

CHART 2



Absorbable Iron Comparison

1 oz. WIC Cereal at 45% USRDA Iron to 3 oz. Cooked Hamburger

CHART 3

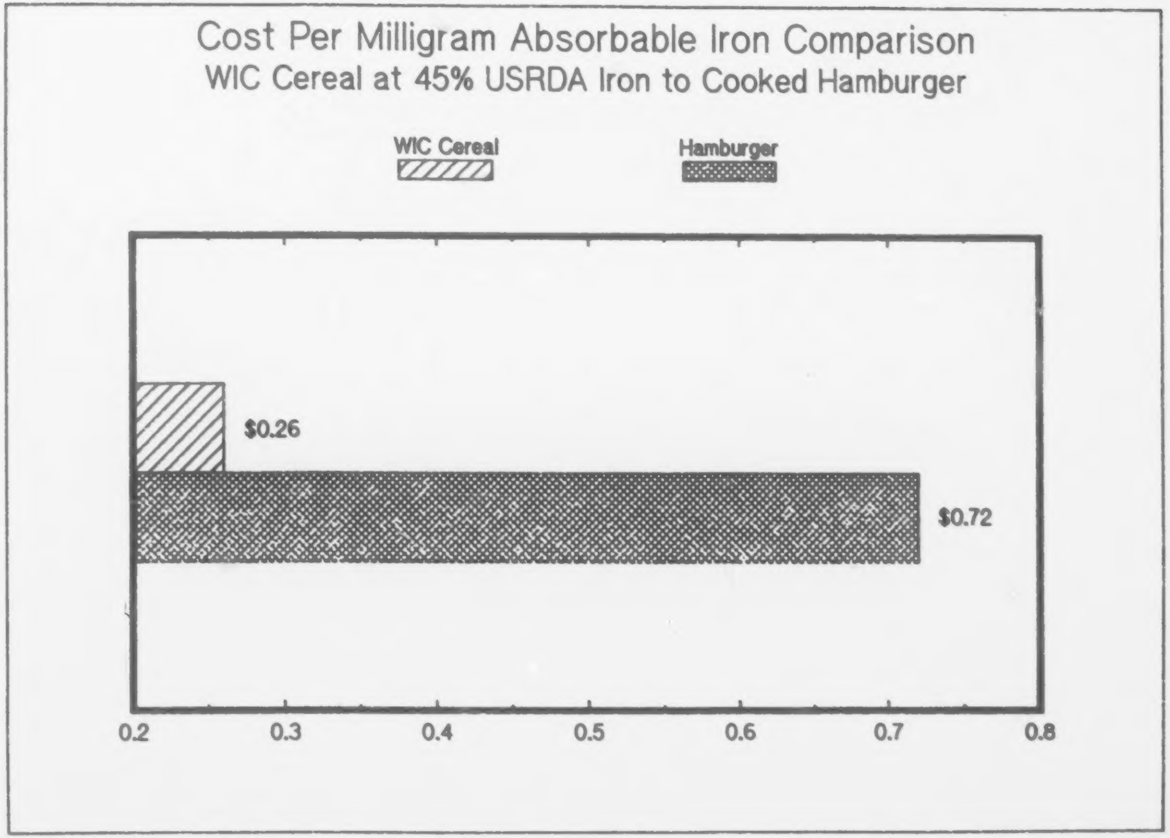

Cost Per Milligram Absorbable Iron Comparison
WIC Cereal at 45% USRDA Iron to Cooked Hamburger

CHART 4

THE IMPACT OF ADDING HAMBURGER TO THE WIC FOOD PACKAGE ON A DAILY BASIS

CHILDREN 1 to 5 YEARS

	Current Package Per Day		Current Package Plus 2 oz. Hamburger Per Day	
Nutrient	g or mg	% RDA	g or mg	% RDA
protein, g	31.5	112	45.6	205
fat, g	31.8	-	54.3	-
cholesterol, mg	308.7	-	381.0	-
iron, mg	10.1	100	11.6	116.3
vitamin A, IU	2513.2	100	2513.3	100
vitamin C, mg	80.4	200	80.4	200
calcium, mg	542.0	68	549.0	69

PREGNANT AND LACTATING WOMEN

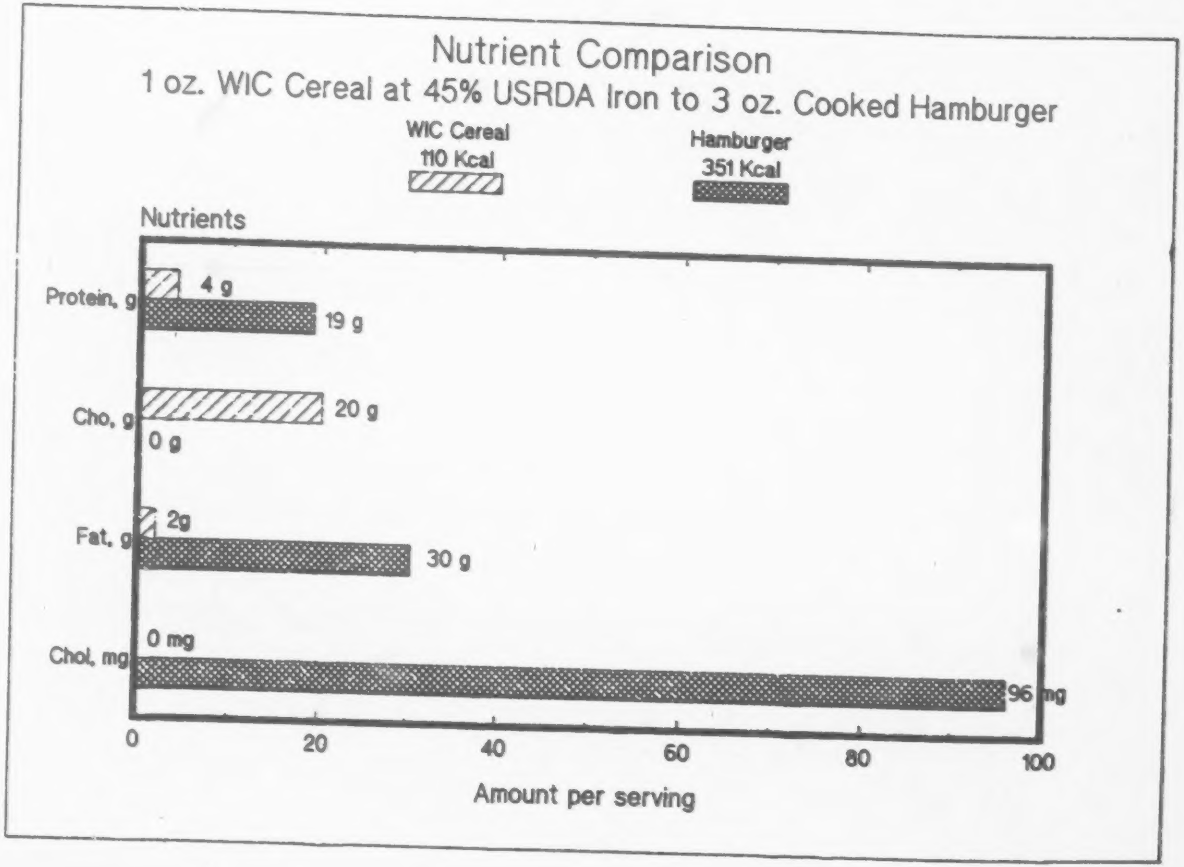
	Current Package Per Day		Current Package Plus 2 oz. Hamburger Per Day	
Nutrient	g or mg	% RDA	g or mg	% RDA
protein, g	31.5	113	50.32	155
fat, g	31.8	-	61.9	-
cholesterol, mg	308.7	-	405.1	-
iron*, mg	10.1	56	12.1	67
vitamin A, IU	2513.2	42	2513.3	42
vitamin C, mg	80.5	80	80.5	80
calcium, mg	542.0	34	551.0	34

* Used 18 mg for the RDA for iron; diet generally must be supplemented to get the iron required during pregnancy.

POST-PARTUM WOMEN

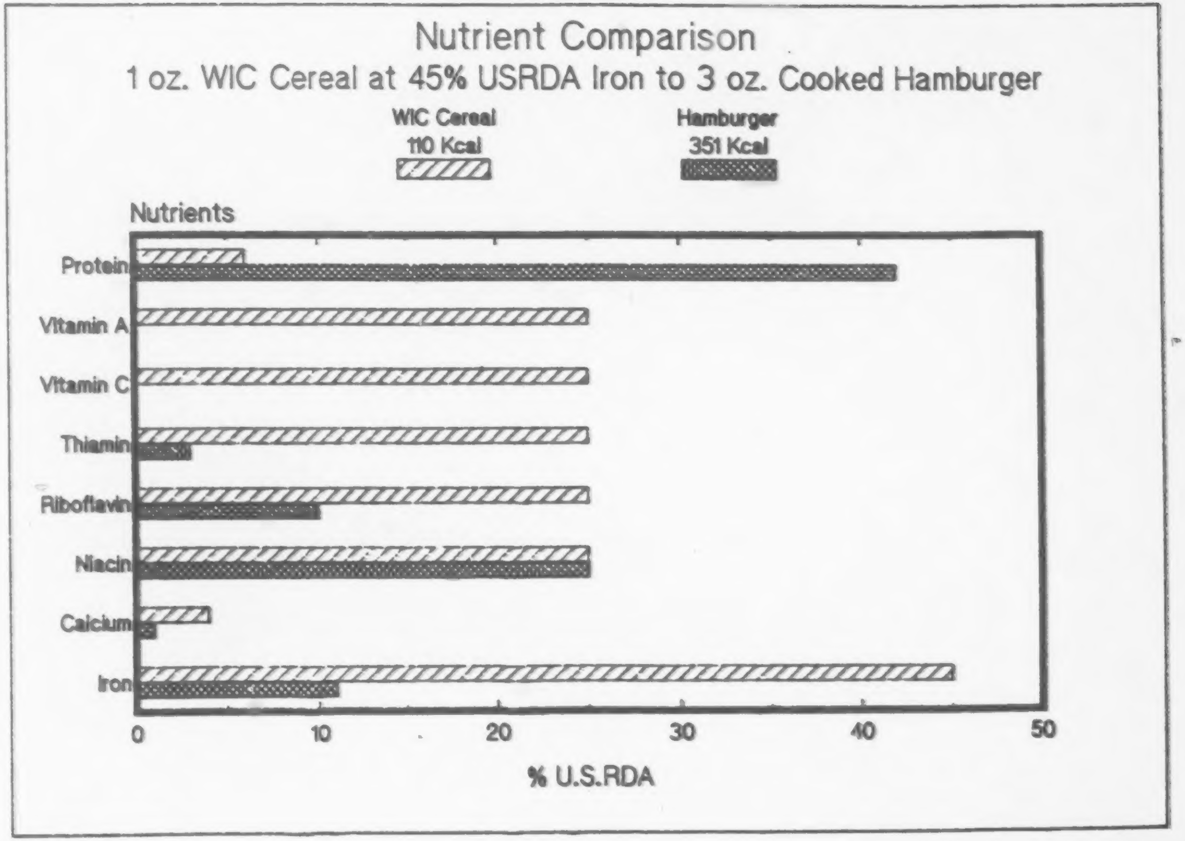
	Current Package Per Day		Current Package Plus 2 oz. Hamburger Per Day	
Nutrient	g or mg	% RDA	g or mg	% RDA
protein, g	23.2	36	42.1	65
fat, g	15.0	-	45.1	-
cholesterol, mg	308	-	405	-
iron, mg	9.6	53	11.5	64
vitamin A, IU	2513	50	2513	50
vitamin C, mg	80.4	134	80.4	134
calcium, mg	529.0	53	538.0	54

CHART 5



Nutrient Comparison
1 oz. WIC Cereal at 45% USRDA Iron to 3 oz. Cooked Hamburger

CHART 6



Nutrient Comparison

1 oz. WIC Cereal at 45% USRDA Iron to 3 oz. Cooked Hamburger

APPENDIX 1

AMOUNT ABSORBABLE IRON AND COST FOR CEREAL AND HAMBURGER

IRON FROM CEREAL

Per Monthly Allowance (36 oz) = 291.6 mg iron
Per Ounce (45% U.S. RDA) = 8.1 mg iron

	Assuming that 15% is absorbed:	Assuming that 10% is absorbed:	Assuming that 5% is absorbed:
36 oz	43.74 mg absorbable iron	29.16 mg absorbable iron	14.58 mg absorbable iron
1 oz	1.2 mg absorbable iron	0.81 mg absorbable iron	0.40 mg absorbable iron

Cost Per mg Absorbable Iron

at 15% absorption:	at 10% absorption:	at 5% absorption:
18¢/mg absorbable iron for most expensive cereal	26¢/mg absorbable iron for most expensive cereal	52¢/mg absorbable iron for most expensive cereal
11¢/mg absorbable iron for least expensive cereal	16¢/mg absorbable iron for least expensive cereal	32¢/mg absorbable iron for least expensive cereal

IRON FROM HAMBURGER

Per Pound:

Iron per pound = 7.84 mg

Absorbable iron per pound = 1.96 mg (assuming 50% heme iron at 40% absorption and
50% non-heme iron at 10% absorption)

Per Serving:

Absorbable iron per 4 oz raw hamburger (3 oz cooked) = .49 mg

Absorbable iron per 3 oz raw hamburger (2 oz cooked) = .37 mg

Cost Per mg Absorbable Iron* = 72¢

Cost of adding 2 lbs. hamburger per month to WIC food package for women and children 1-5 (2.4 million or 70% of WIC participants):

$ 6.8MM/month $81.8MM/year

* based on $1.42/lb hamburger (national average price)

STATEMENT OF ARTHUR W. MAHONEY, PROFESSOR OF NUTRITION UTAH STATE UNIVERSITY, LOGAN, UTAH 84322-8700

Mr. Chairman, members of the committee, I am addressing the provision of absorbable dietary iron especially to children in the WIC program even though much of the information in this statement is applicable to the other nutrition programs under the purview of this committee.

The body cannot absorb and utilize all of the iron consumed because much of the ingested iron is not absorbable. Because it is absorbed two different physiological mechanisms with different efficiencies of absorption, dietary iron is divided into two fractions by dietitians; heme iron which is the red pigment in meat, fish, and poultry and nonheme iron which is the remaining dietary iron. Approximately 23 percent of the dietary heme iron is absorbable and its absorption is not affected by other dietary factors. However, only 3 to 8 percent of the dietary nonheme iron is absorbable depending on the amount of meat, fish and poultry and vitamin C consumed in the meal which enhance its absorption. Moreover, certain dietary factors decrease the nonheme iron absorption; tannins in tea; phytic acid in beans, most soy products, wheat bran and many other cereal products; and oxalic acid in spinach and rhubarb.

The amount of heme iron in meat products varies. Beef, mutton and goat meat have the most iron, about 60 percent of it is heme. Pork and poultry dark meat have intermediate amounts of iron and about 40 percent is heme. Poultry white meat and fish have the least amounts of iron, about 40 percent is heme. Moreover, cooking destroys heme iron converting it to nonheme iron depending on cooking time and temperature. We found in 30 cooked hamburgers purchased at different times from five resturants that over 65 percent of the average meat iron was heme compared with about 70 percent in raw beef. About 60 percent of roast beef iron was heme in another 30 cooked meat samples purchased from resturants. However, only about 33 percent of the iron in cooked frankfurts is heme due to their longer cooking times during manufacture.

Meat is an important dietary factor for good iron nutrition. In a study of the diets of 737 Utah school children, we found that meat, fish and poultry combined contributed an average of 40 percent of their absorbable iron while making up only about 20 percent of their total dietary iron. Based on our hamburger findings mentioned above, the situation is even better for people who consume mostly beef as their meat source. We found that cooking meat does not reduce the absorption of meat iron by rats even though its heme iron content is reduced, and rats absorb nonheme iron from meat better than plant foods or ferrous sulfate a common highly absorbable iron supplement. Thus, meat is an important dietary contributor of highly absorbable iron.

A pound of lean ground beef costs about $1.30 and can be made into four 113 gram (4.0 oz) patties providing about 2.8 milligrams total iron.

Product	Total Iron, milligrams	Absorbable Iron, milligrams	$ per milligram Absorbable Iron
1 patty lean ground beef	2.80	0.49	$0.65
1 patty regular ground beef	2.00	0.36	$0.70
1 serving cheerios	8.10	0.40	$0.38
1 serving bran flakes	18.00	0.90	$0.19

Meat is cost competitive as a source of absorbable dietary iron and should be included in modest amounts in nutritionally well-balanced diets unless the client is vegetarian. Meat is also an important source of high quality protein, minerals and vitamins. Moreover, meat enhances the absorption of iron. Thus, *the cost of meat in a diet should not be based only on its contribution of a single nutrient* such as iron illustrated above but the cost should be prorated across all of its nutritional benefits.

PREPARED STATEMENT OF RUTH A. LAWRENCE, M.D., PROFESSOR OF PEDIATRICS AND OBSTETRICS/GYNECOLOGY AT THE UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE, ROCHESTER, NY

I am writing to support breastfeeding in the United States. The health goals of this Nation include the goal of having 75 percent of women breastfeeding at discharge from the hospital and at least 35 percent still breastfeeding at 6 months post partum. The Surgeon General's Workshop which I chaired in 1984 was held to "identify and reduce the barriers which keep women from beginning or continuing to breastfeed their infants." Copies of the report of the workshop were sent to every Member of the Senate and the House of Representatives. There has been extensive activity by the Office of Maternal and Child Health to implement the recommendations of the workshop. These efforts must continue.

Human milk is the ideal nourishment for the human infant especially the impoverished and compromised infant. But human milk provides more than nutrition. It is a dynamic living fluid with almost 100 active enzymes that influence its digestibility and influence the maturation of the newborn infant's digestive system. Human milk also provides many elements that protect against infection including living cells. In high risk infants who are born to poor malnourished families, it can make the difference between life and death. The study of the immunology of human milk is an emerging science that has already demonstrated important differences between breast-fed and bottle-fed infants in the onset of diabetes, cystic fibrosis, celiac disease, and lymphoma.

Those infants who would benefit most from being breastfed, who are at greatest risk for illness, infection, neglect, and abuse are not being breastfed because their mothers do not receive enough help and support to do so. The very process of nursing one's infant can change the way a mother feels about her baby and about herself. Breastfeeding empowers a mother to do something special for her infant. Breastfeeding can change a mother's life.

In order to provide the necessary help and support to breastfeed for all mothers, the line item in the appropriations document in the maternal and child health program to support breastfeeding is essential.

Since the Women, Infants and Children Program (WIC) is a major maternal and child's nutrition program that deals with women at a critical time to influence them to breastfeed, WIC will also benefit from this specific appropriation. I encourage you to support appropriations for services to facilitate breastfeeding for the mothers and their infants in the United States.

PREPARED STATEMENT OF CHARLES HUGHES, PRESIDENT OF LOCAL 372, BOARD OF EDUCATION EMPLOYEES, DISTRICT COUNCIL 37 AND CHAIRPERSON OF THE SCHOOL ADVISORY COMMITTEE, AMERICAN FEDERATION OF STATE, COUNTY AND MUNICIPAL EMPLOYEES (AFSCME)

Mr. Chairman and distinguished members of the subcommittee. My name is Charles Hughes. I am the chairperson of the American Federation of State, County and Municipal Employees' School Advisory Committee, which represents 150,000 members.

I am also president of Local 372, Board of Education Employees, District Council 37, in New York City. Our members staff the Nation's largest school feeding programs in terms of both student participation and employees. On an average day, our members serve about 700,000 breakfasts and lunches.

It is a privilege for me to testify before this subcommittee. During the many years that I have advocated improved child nutrition programs, I have been moved by your sensitivity and commitment to our Nation's children, and more particularly, by your steadfast support of child nutrition and the National School Lunch and Breakfast Programs. As you know, these programs greatly enhance our children's ability to thrive in school and consequently improve the quality of their lives.

AFSCME has staunchly supported the School Lunch Program since its inception. We worked with you as you strove to develop that program and the newer School Breakfast Program into major bulwarks protecting the school children of our Nation against the ravages of hunger and malnutrition. During the past 8 years we have offered and given our support as you were forced to deal with the Reagan administration's draconian proposals to gut these programs.

Unfortunately, Mr. Chairman, our work is far from complete. Neither the School Lunch or the School Breakfast Program recovered from the drastic budgetary attacks of the early 1980's when the child nutrition programs were slashed by 28 percent. Despite the efforts of AFSCME, the Food Research and Action Center, the

American School Food Service Association and other concerned groups, fewer schools and fewer children participate in the food programs today than in 1981. 600,000 fewer children received free school lunches in 1987 than in 1981 and total lunches served declined from 26 million to just over 24 million today.

If the participation rates for the School Lunch Program are unsatisfactorily low, the participation rates for the School Breakfast Program are outrageously poor. While it is shameful to have the School Lunch Program serve only half of our Nation's school children, 90 percent of the schools *do* offer the program. In comparison, however, less than one-third of our Nation's schools even offer breakfast to their students. 3.7 million school breakfasts are served each day to less than 8 percent of our school children.

We cannot sit back and accept these low participation rates at a time when the number of children and families living in poverty has been increasing; the poor are getting poorer and there is less Government assistance available to help them. In 1979, Government benefits lifted one poor family in five out of poverty; in 1987 that ratio was reduced to 1 in 10.

For far too many of our children, the school lunch and breakfast offer the only daily hope for hot, nutritious meals. The need to expand the breakfast program becomes even more urgent when we see that this program is utilized disproportionately by children from families with the lowest incomes. Nearly 90 percent of the children currently eating breakfast in school come from low-income households as compared to 48 percent of those eating school lunches. U.S. Department of Agriculture (USDA) studies show that poor children depend on these meals for half of their daily nutrient intake.

While parents and educators have always known that hungry children do not learn, the interrelationship between good nutrition and a child's ability to achieve in the educational setting has been well documented only recently. According to a study released by the National Education Association and the Food Research and Action Center entitled "The Relationship Between Nutrition and Learning," a child suffering from undernutrition is less physically active, less attentive and less able to concentrate. Hence reading ability, verbal skills and motor skills suffer.

In another recent report, Dr. Alan Meyers of Boston City Hospital and Amy Sampson of the Tufts University School of Nutrition studied the effects on classroom performance of serving a school breakfast to over 1,000 low-income students in Lawrence, Massachusetts when none had been provided previously. Their findings demonstrate that school breakfast participation is associated with significant improvements in academic performance, absenteeism, and tardiness among high-risk elementary school children living at or near poverty.

Mr. Chairman, an increased Federal commitment to the National School Breakfast Program is essential if we ever hope to eradicate hunger and improve the educational performance of our Nation's children. To do this, I believe, we should be looking at the expansion of the School Breakfast Program. Eating breakfast at school translates into significant improvement in achievement test scores. It translates into children moving ahead each June from grade to grade rather than being left back to repeat a year at an added cost to the school district and to the child's future.

Between October and December 1987, AFSCME and the New York City Board of Education conducted a major campaign to expand the School Breakfast Program. This successful undertaking increased participation in the program by more than 25,000. We now serve over 143,000 breakfasts to New York City's school children every day. But still our work is far from complete.

While we have a higher ratio of breakfasts to lunches served than the national rate, it is not good enough. Our School Breakfast Program serves only one-fifth as many meals as our School Lunch Program. We know that the need is there. At many of our schools which participate in the School Breakfast Program, children literally form "bread lines" each morning as they wait hungrily for their breakfasts. For many it is the first meal they have had since the school lunch they ate the day before.

Because of your active support, the Federal reimbursement rate for the School Breakfast Program will be increased by 3 cents a meal on July 1, 1989, as a result of the passage of the Hunger Prevention Act of 1988. This should encourage more schools to establish a breakfast program. However, there is more that can be done to ensure a higher participation rate.

The 1990 budget resolution assumes $15 million in new entitlement authority for the fiscal year (FY) 1990 Child Nutrition Reauthorization Bill for the School Breakfast and Summer Food Programs. I recommend that $5 million be used for startup funds for the School Breakfast Program. Despite evidence linking breakfast with improved school performance and successful breakfast programs such as ours in New York City, many school boards and administrators still make no effort to establish such programs. They cite various reasons: problems with bus schedules, high startup and administrative costs, and Federal budget cuts. Some also cling to the outdated belief that schools are not the appropriate places for children to eat breakfast—breakfast is a family meal. And astonishingly, still others are simply unfamiliar with the program.

I urge the subcommittee to authorize the additional $5 million in new entitlement authority assumed in the budget resolution for grants to schools to establish a breakfast program. Such funds would enable schools to increase their kitchen capacity in order to offer two meals a day as well as to aggressively promote the School Breakfast Program and its benefits to school systems around the country. Outreach funds are needed to ensure that parents, teachers and school officials are educated as to the value of the program.

To encourage State-level involvement, I recommend that each State's Department of Education be required to set a yearly numerical target for increasing the number of schools serving school breakfasts in their annual State plans of operation. USDA regional offices should also be required to promote the School Breakfast Program by offering technical assistance to schools to help States meet their targets.

Mr. Chairman, I am also concerned about recent reports that the amount of bonus commodities which the Government distributes to school lunch programs have declined to such an extent that school officials say they will have to increase lunch prices by fall. Changes in Federal law in 1985 designed to reduce excess dairy surpluses and lower Government costs have resulted in such deep cuts in farm output that much of the bonus foods going to schools and food banks has been eliminated.

One way in which the schools dealt with the massive cuts to the nutrition programs in 1981 was to rely on the bonus commodities. Schools were forced to depend on these foods, not as extras, but as staples. Now, as bonus commodities become scarce schools will have to make dramatic changes in their menus or raise prices. For example, less surplus cheese will mean that schools will probably have to cut back on meals like pizza, cheeseburgers and macaroni and cheese. The alternatives are to eliminate these popular meals or charge more. As we know from past experience, any increase in the cost of reduced price or paid lunches will result in many students being forced from the program. I urge this subcommittee to seek a remedy to this problem when they consider the "farm bill" next year.

The School Lunch and Breakfast Programs are crucially important to our children's nutritional and educational needs. Seventy-six cents a day can provide breakfast to a child. Seventy-six cents a day can prevent that child from failing to learn in school. AFSCME stands ready to assist you in any way we can to make sure these programs are protected. Mr. Chairman and members of the subcommittee, children are the key to our future and these child nutrition programs are the key to their nutritional and educational passage into that future.

PREPARED STATEMENT OF JAMES R. EBBITT, ASSISTANT INSPECTOR GENERAL FOR AUDIT, OFFICE OF INSPECTOR GENERAL, UNITED STATES DEPARTMENT OF AGRICULTURE

Mr. Chairman and members of the committee, we are pleased to appear before you today to discuss our audit and investigative activities regarding the Food and Nutrition Service's (FNS) Supplemental Food Program for Women, Infants and Children (WIC Program) and National School Lunch and Breakfast Programs.

WIC PROGRAM

For fiscal year (FY) 1989, the estimated cost of food for the WIC Program is $1.5 billion, while estimated costs for administrative expenses are $385 million. Most States operate a retail purchase system to provide supplemental foods to participants. Under this system, participants receive food vouchers to purchase supplemental foods at retail food vendors (grocery stores) authorized by the States. The vendors are then reimbursed by the States for the applicable food items, whose prices are inserted on the food vouchers by the vendors.

AUDIT OBJECTIVES

In June of 1988, we issued an audit report on the WIC Program that addressed the systems used by State agencies to provide food to WIC Program participants through retail food vendors. Audit work was conducted at FNS headquarters, 5 of the 7 FNS regional offices, 7 State agencies and 15 local agencies. We also visited

107 vendors. At the time of the audit, the seven States accounted for about $313 million (20 percent) of the WIC Program expenditures for FY 1986. The objectives of our audit were to determine if FNS ensured that States had effective systems for: (1) monitoring vendors; (2) reconciling issued and redeemed food vouchers; (3) accounting for and safeguarding food vouchers; and (4) detecting and preventing dual participation.

These same areas were last reviewed as part of a nationwide audit performed in 1980. That audit had disclosed vendors abused the program by overcharging or by charging for food items not purchased. In response to the 1980 audit, FNS issued rules relating to vendor authorizations and agreements, vendor monitoring, vendor sanctions, and design and review of food vouchers. In addition, FNS sponsored several demonstration projects to identify high risk vendors, and several workshops for States on vendor monitoring.

Past investigations have also identified vendor abuse. In FY 1986, an investigation in New York resulted in six persons being found guilty of fraud in the WIC Program. The defendants, who were not authorized to accept and transact WIC food vouchers, fraudulently deposited over $2.3 million worth of food vouchers in numerous bank accounts from August 1985 through March 1986. The defendants also inflated the actual purchase price of food items to reflect the maximum potential value of the food vouchers. The defendants were fined up to $50,000 and received prison sentences ranging up to 10 years.

Another investigation of a California dairy company which delivered food items to WIC Program participants resulted in 31 individuals, including the dairy's owner, pleading guilty to defrauding the WIC Program. The persons paid WIC Program participants cash for food vouchers, inflated the value of food vouchers, accepted food vouchers for ineligible items, and altered food vouchers made payable to other stores so the dairy could redeem them. The State estimated the fraud involved $2.5 million. Fines, recoveries and restitution totaled over $1.9 million. The owner was sentenced to 3 years in prison and fined $10,000.

AUDIT RESULTS

Our recent audit showed that while FNS has made efforts to address material deficiencies noted in the prior audit, FNS still needs to improve its overall management of the WIC Program by strengthening its monitoring efforts at the regional office and State and local levels, and by strengthening its regulations to provide more effective and consistent requirements for the areas reviewed. Unless actions are taken in these vulnerable areas, the vendor abuse and other deficiencies we noted will continue to exist without detection and/or corrective action.

VENDOR MONITORING AND COMPLIANCE VISITS

As part of our audit, we made "undercover" visits to 107 vendors where we posed as WIC Program participants, to determine if the vendors would overcharge for food items purchased, or charge for items not purchased. The 107 vendors were located in large metropolitan areas in six of the States reviewed. We excluded chain stores from our review since FNS studies for both the WIC Program and Food Stamp Program have shown that chain stores, because of better internal controls, are less likely to abuse the WIC Program. From the food vouchers we transacted during our visits, we found that:

- 82 vendors, or 77 percent of those visited inflated food vouchers;
- 298 of the 538 food vouchers transacted, or 55 percent, were inflated; and
- on the average, inflated food vouchers with a proper value of $14.99 were inflated by an additional $4.26, or 28 percent.

The 107 vendors tested redeemed an estimated $7.2 million in food vouchers in FY 1987. Nationwide, there are about 53,000 WIC Program vendors.

Our review of the vendor monitoring systems in the States showed that the systems needed to be designed to identify high risk vendors more effectively. Followup efforts were also needed to confirm vendor abuse and to disqualify or sanction vendors. While most States performed onsite monitoring visits to vendors, most did not put emphasis on "undercover" compliance purchases to test for vendor abuse. While WIC Program regulations require States to have the capability to perform compliance purchases, the regulations do not require States to perform them.

Sanction policies for overcharging the WIC Program, developed by the seven States, were not consistent. They ranged from a warning letter to a 3-year disqualification. While WIC Program regulations provide for the States to have a sanction policy, the regulations do not specify minimum sanctions for various types of abuse.

RECONCILIATION OF FOOD VOUCHERS

The seven States we reviewed had made substantial improvements in their systems for reconciling food vouchers since our 1980 audit. However, we continued to find that their efforts to reconcile food vouchers and to followup on those redeemed food vouchers not matching certification records needed strengthening. While FNS regulations require States to reconcile each food voucher issued, the reconciliation process is considered complete when at least 99 percent are reconciled and all reasonable management efforts have been made to determine the reasons for food vouchers do not reconcile.

Specific conditions that we noted for the seven States reviewed included:

- Only one State reconciled food vouchers redeemed by vendors to its masterfile of eligible certified recipients, but it did not followup on unreconciled food vouchers which were identified as being issued to terminated participants. We statistically projected that at least 37,500 food vouchers were issued and redeemed improperly for $241,000. Both the State and FNS had believed minimum reconciliation requirements were being met since the State had been reconciling at least 99 percent of its food vouchers;
- Four States made no effort to followup on food vouchers identified as not reconciling with issuance records, and a fifth State retained no documentation of its reconciliation efforts; and
- One State simply determined that redeemed food vouchers had been sent to the applicable local agencies for issuance.

DUAL PARTICIPATION

Our audit found that the State efforts to detect and prevent dual participation also needed to be strengthened. Four States did not adequately detect and/or followup on identified instances of potential dual participation to determine if actual dual participation occurred, prevent its reoccurrence and recover duplicate benefits issued improperly. Our statistical review in one State disclosed that at least $300,000 in duplicate benefits were received by 770 individuals over periods up to 2 years.

RECOMMENDATIONS MADE TO FNS

To correct the conditions we noted, we recommended that FNS perform periodic reviews of regional office operations, and develop a comprehensive guide to be used by regional offices for management evaluations of State operations. Regarding vendor issues, we recommended that States be required: to use minimum techniques and criteria to identify high risk vendors; to use effective methods to prevent vendors from overcharging on food vouchers; to perform compliance purchases; and to apply specific sanctions for vendors violating program regulatory requirements. Regarding accountability, we recommended that FNS require States to identify as part of the reconciliation process all redeemed food vouchers not validly issued to a properly certified participant, and hold the States liable for the value of such food vouchers. Finally, regarding prevention of dual participation, we recommended that FNS obtain legislative authority to require WIC Program applicants to obtain and furnish Social Security numbers (SSN) for all household members over 1 year of age, and require States to use minimum matching criteria including SSN's to detect dual participation. We also recommended that FNS hold States liable for dual benefits issued through agency error.

CORRECTIVE ACTIONS PLANNED AND BEING TAKEN BY FNS

FNS has generally agreed with the audit findings and the need for and nature of corrective action. Since the audit was issued in June 1988, FNS has provided us three updates on the status of corrective actions being taken on the audit. We have been monitoring FNS's corrective actions, which when fully implemented, should result in improved program operations and a reduction in the extent of vendor abuse.

FNS has convened a task force to develop a Uniform Management Evaluation Guide for use in reviewing State operations starting in FY 1990.

FNS is also in the process of developing revised regulations which when finalized in 1990 will: (a) set forth minimum techniques and criteria to identify high risk vendors; (b) require States to obtain and use vendor price lists for the authorization, reauthorization, and monitoring process; (c) require States to take specific actions on high risk vendors, including compliance investigations or audits; (d) include standardized sanctions and disqualification periods for serious WIC Program abuses; (e) require States to followup on all food vouchers not validly issued to properly certified participants, and hold States liable for unreconciled food vouchers; and (f) require States to use a minimum number and type of matching criteria to detect dual participation, and hold the States liable for dual benefits obtained through agency error.

FNS has further developed a cooperative agreement for States which provides for sharing information on vendors disqualified from the various FNS programs.

In addition, FNS plans to implement the Department's nonprocurement, debarment and suspension regulations as they apply to vendors participating in the Food Stamp and WIC Programs.

Finally, FNS has submitted a legislative proposal to OMB which includes collecting Social Security numbers for WIC Program applicants.

INVESTIGATIVE ACTIVITIES

As a result of our audit work, we are investigating 25 vendors in two metropolitan areas and we are working with the Department of Justice to pursue criminal and/or civil prosecutions. We referred the remaining 57 vendors to the applicable States for appropriate administrative actions. For example, one State levied sanctions, which included fines up to $2,000 and permanent WIC disqualification.

NATIONAL SCHOOL LUNCH AND BREAKFAST PROGRAMS

AUDIT RESULTS

Moving now to school food service activities. In fiscal year 1989, $3.5 billion was budgeted for the National School Lunch and Breakfast Programs. The programs operate in about 90,000 schools in over 19,500 school districts, serving over 24 million students daily.

In May 1987, we issued a report summarizing the results of audits conducted in 13 large school districts located in 6 States. The audit results were not statistically representative of school food service operations nationwide. The results did, however, disclose conditions of noncompliance and internal control weaknesses that we believed should be addressed nationally. The audits detected weaknesses in the way meals were being counted and claimed for Federal reimbursement. Specifically, (1) school districts had not established effective meal count procedures, (2) schools were not following the school districts' free and reduced price meal count procedures, and (3) school districts were not effectively monitoring or enforcing compliance with accountability requirements. Meal count and claim problems were found in 11 school districts and resulted in documented recovery of over $1.9 million. We found that assessment, improvement, and monitoring system (AIMS) reviews conducted by State agencies would not necessarily have disclosed the meal count and overclaim conditions in the schools. The review procedures did not accurately test school meal count procedures, review breakfast operations, and evaluate school districts' oversight of school operations.

We recommended that FNS:

1. Require that school districts: (a) establish effective internal controls to ensure the propriety of school meal counts and claims; (b) analyze school meal claims against attendance records; and (c) conduct site reviews that include tests of schools' meal count procedures.
2. Revise AIMS procedures to: (a) evaluate school districts' oversight of school meal counts and claims; (b) test school meal counts more precisely; and (c) include the school breakfast program in the review process.

In response to the recommendations, FNS proposed regulations to tighten accountability and revise AIMS review procedures. Other corrective actions included: (1) revising policy guidance; (2) requiring intensified reviews of schools by the school districts and State agencies; and (3) providing technical assistance to States and school districts. FNS developed an initiative, "Project Accuclaim," to formulate the corrective actions and monitor their implementation. FNS recently undertook another initiative, "Federal Review System," which involves Federal monitoring reviews nationwide to test schools' meal count and claim procedures. In school year 1988/89, FNS plans to conduct reviews at over 200 school districts.

We plan to review these two initiatives as part of our fiscal year 1990 audit program.

We have recently conducted an audit of the school food service operations of the New York City Board of Education, and a nationwide audit of school districts' contracting for food service management companies.

The New York City Board of Education, the largest school district in the country, operates 1,000 schools and received about $116 million in Federal reimbursement for school year 1987/88. Our review at 25 judgmentally selected schools disclosed 17 schools that did not maintain adequate accountability systems to ensure accurate meal counts and claims for reimbursement. The 17 schools overclaimed about $488,000 (17 percent) of the $2.9 million in reimbursement they received for school year 1987/88. The school district did not have a unit responsible for ensuring that schools operated in accordance with accountability regulations. Consequently, the 1,000 individual schools operated autonomously and the potential for excessive lunch claims existed, as evidenced by our audit.

We recommended that FNS recover the overclaim by the 17 schools and require that the school district establish controls for ensuring the accuracy of meal counts at all 1,000 schools.

We recently completed a nationwide audit of contract procedures used by school districts for acquiring the services of food service management companies. In the 1987/88 school year, 838 school districts contracted with food service management companies to operate their lunch programs. We statistically selected and reviewed a sample of 99 school districts located in 18 States. We found that: (1) a high percentage of school districts were not complying with one or more Federal procurement standards; and (2) FNS and the responsible State agencies had not provided school districts sufficient contracting guidance. For example, 71 of the 99 sampled school districts did not follow federally approved procurement procedures for competitive bidding or competitive negotiation. These conditions take on added importance considering that the number of school districts contracting with food service management companies is steadily increasing.

We recommended that FNS provide States with contracting guidelines and require States to: (1) review school district procurement actions for compliance with standards; and (2) perform periodic reviews to ensure compliance.

INVESTIGATIVE RESULTS

In the past year, we completed one investigation which disclosed that a school lunch manager inflated the number of meals served. We currently have three ongoing investigations of school employees or private contractors administering school lunch programs who allegedly inflated the number of lunches served either to conceal embezzlement of funds or to show a profit and continue a contractual relationship with the school district.

This concludes my prepared statement Mr. Chairman. I will be happy to answer any questions you may have.

CONGRESSIONAL RESEARCH SERVICE,
THE LIBRARY OF CONGRESS,
Washington, DC, June 7, 1989.

To: Hon. Tom Harkin,
Attention: Bob Andros.
From: Jean Jones, Specialist in Social Legislation and Ilene Shapiro, Technical Information Specialist, Education and Public Welfare Division.
Subject: **The Origins of Food Items and Food Package Requirements in the Special Supplemental Food Program for Women, Infants and Children (WIC).**

This is in response to your request regarding the origins of the food items and the food package requirements in the Special Supplemental Food Program for Women, Infants and Children (WIC).

The term "supplemental foods" was defined in amendments enacted in September 1972 to the Child Nutrition Act of 1966, Public Law 92-433. A new sec. 17(f)(3) of the Child Nutrition Act (enclosed) provided that supplemental foods shall mean ". . . foods containing nutrients known to be lacking in the diets of populations at nutritional risks . . . ." It identified five target nutrients: high-quality protein, iron, calcium, vitamin A, and vitamin C. Further, it allowed the Secretary of the U.S. Department of Agriculture (USDA) to treat as "supplemental" food any commercially formulated preparation designed specifically for infants.

The target nutrients identified in Public Law 92-433 served as the basis for determining the actual food items. At the request of some Members of Congress, an advocacy group known as the Community Nutrition Institute convened a conference in November 1972 of 16 health and nutrition experts to make recommendations to the USDA regarding specific food items rich in the target nutrients.

In early 1973, the USDA convened another task force whose purpose was to incorporate the recommendations of the Community Nutrition Institute conference, and to further define and identify food items that would:

(1) Provide major sources of the target nutrients at a reasonable cost;
(2) Not spoil or deteriorate easily or quickly;
(3) Be easy to store and have a long shelf life; and
(4) Be readily available and accepted in the United States.

Regulations issued by the USDA on July 11, 1973, set forth the actual food items.[1]

Although the WIC food items were specified in 1973, they were not then grouped into USDA-defined food packages. Rather, the local WIC clinic created and issued its own "packages" of foods for participants, based on the participant's medical and nutritional condition, food preference, etc. Four years later, on August 26, 1977, USDA issued regulations [2] that established three food packages according to participant categories—one for infants, another for children and pregnant, post partum, or breastfeeding women, and a third for children with special dietary needs.

Congress changed WIC food requirements in the Child Nutrition Amendments of 1978, Public Law 95-627 (sec. 3), signed on November 10, 1978. The 1978 provisions (enclosed) deleted the legislative language specifying nutrients and gave the Secretary of the USDA the authority to prescribe by regulation the supplemental foods to be made available to WIC program participants. (The regulations did specify that to the degree possible, the Secretary was to ensure that the fat, salt, and sugar content of the prescribed foods was appropriate.) These provisions were partly a response to the vast amounts of new information about human growth, development, and nutrition that had become known since the target nutrients were first specified in 1972.

On November 12, 1980, the USDA issued regulations revising the types and quantities of supplemental foods provided by the WIC program in accordance with the 1978 law's directive. Among other things, these regulations expanded the number of food packages from three to six to more closely reflect the nutritional needs of the participant group.[3] The supplementary information included with the November 12, 1980, regulations contains useful background information that will aid in your understanding of why the food components and the food packages are structured as they are today.

We hope this information, in addition to the following chronology, will be helpful. If we can be of further assistance, please call 707-5885.

---

[1] *Federal Register*, v. 38, No. 132, July 11, 1973, pp. 18447-18451. See sec. 246.13, p. 18450 (enclosed).

[2] Ibid., v. 42, No. 166, Aug. 26, 1977, pp. 43209-43218 (enclosed).

[3] Ibid, v. 45, No. 220, Nov. 12, 1980, pp. 74854-74877 (enclosed).

CHRONOLOGICAL SUMMARY OF DETERMINANTS OF WIC FOOD PACKAGE ITEMS

DATE AND PROVISION

September 1972—Public Law 92-433 defined "supplemental foods" for use in the WIC Program as ". . . foods containing nutrients known to be lacking in the diets of populations at nutritional risks . . ." and identified five target nutrients: high-quality protein, iron, calcium, vitamin A, and vitamin C. It also provided that the term might include, at the discretion of the Secretary [of the USDA], ". . . any commercially formulated preparation designed specifically for infants."

November 1972—At the request of several Members of Congress, an advocacy group known as the Community Nutrition Institute convened a conference in November 1972 and made recommendations to the USDA concerning foods rich in the target nutrients.

1973—The USDA convened its own task force in early 1973, and sought to incorporate the Community Nutrition Institute recommendations with other considerations, such as cost, availability, acceptance and storability of food items, etc.

1973—USDA issued regulations on July 11, 1973, that set forth the WIC food items (*Federal Register*, v. 38, p. 18450, enclosed).

1977—USDA issued regulations on August 26, 1977, that grouped the WIC food items into three WIC food packages—one for infants, another for children and pregnant, post partum, and breastfeeding women, and a third for children with special dietary needs.

1978—Public Law 95-627 deleted the requirement for specific nutrients in WIC foods, and gave the Secretary of the USDA authority to prescribe by regulation the supplemental foods to be made available to WIC participants.

1980—In response to Public Law 95-627, USDA issued regulations on November 12, 1980, that revised the types and quantities of supplemental foods provided and expanded the number of food packages from three to six to more closely reflect the needs of the participant groups.

EDITOR'S NOTE.—Enclosures referred to in this document are not a part of the printed hearing record.

○